THE

BOTANICAL REGISTER:

CONSISTING OF

Coloured Figures

OF

EXOTIC PLANTS,

CULTIVATED IN

BRITISH GARDENS:

WITH THEIR

HISTORY AND MODE OF TREATMENT.

THE DESIGNS BY

SYDENHAM EDWARDS,

AND OTHERS.

VOL. XI.

——— *viret semper* ——— *nec fronde caducâ*
Carpitur.

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JAMES RIDGWAY, 169 PICCADILLY.

1825.

MISSOURI
BOTANICAL
GARDEN

M. Hart. del. Pub by J. Ridgway 170 Piccadilly March. 1.1825. S. Watts. sc.

CŒLOGYNE fimbriata.

Fringed Cœlogyne.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDEÆ. Div. IV. Epidendreæ. Sect. II. suprà fol. 851.

CŒLOGYNE, Lindl. *Perianthium* resupinatum, patens. *Labellum* trilobum, cucullatum, cum columna articulatum. Columna alata ultra antheram producta. *Anthera* lateralis, opercularis, bilocularis. *Massæ pollinis* duæ bipartitæ (filo nullo). *Gynizus* infundibularis, bilabiatus. Herbæ *parasiticæ* (Indiæ Orientalis) *bulbosæ; foliis coriaceis, glabris, nervosis.* Flores *pauci, racemosi, e spathâ squamosâ, radicali. Lindl. Coll. Bot.* 33.

C. *fimbriata,* foliis binis oblongo-lanceolatis patentibus, floribus terminalibus solitariis: sepalis interioribus filiformibus; labello fimbriato bicristato.

Caudex *repens, squamosus, ramosus.* Bulbi *ovales, glabri, solitarii, bifolii, basi squamis duabus vaginati.* Folia *oblongo-lanceolata, basi attenuata,* 5-*nervia, glabra, patentia.* Flores *solitarii, terminales, in pedunculo brevi undique squamoso insidentes.* Perianthii *sepala exteriora ovato-lanceolata, basi libera, glaberrima, lateralibus labello suppositis; interiora linearia, tenuia, uninervia.* Labellum *liberum, cucullatum, cum columnâ articulatum, bicristatum,* 3-*lobum, lobis lateralibus erectis, sub-ciliatis, intermedio retuso, fimbriato, a cristis ad latera fulvo.* Columna *libera, erecta, obovata, alata, gynizo excavato, bilabiato: labio inferiore lunato recurvo, superiore magno, porrecto, transverso, demum incumbente.* Anthera *infra apicem columnæ inserta bilocularis; loculis bivalvibus completis; antice denticulata, marginata.* Pollinia 4, *non collateralia, sed antica et postica, quorum postica minora; basi farinosa nec glutinosa nec glandulifera.*

This genus is very different from Cymbidium, from which it is clearly distinguishable by habit, winged column below the summit of which the anthera is inserted; and also by the remarkable two-lipped gynizus, which is almost exactly the same as that of *Arethuseæ.* We established it sometime ago in our Collectanea Botanica, defining two certain species from Nepal, and indicating another, the Cymbidium nitidum of Wallich, as probably belonging to the same genus. Our definition of the genus having been drawn up from dried specimens only, it is peculiarly gratifying to us to find, from the inspection of a new living species, that our account of the genus, and of its essential characters, was in all respects correct, with the exception of the anthera being one-celled. That organ being, in the present species, dis-

tinctly two-celled, we rather believe that the contraction, in the same year, of its interior thin valves in drying, may have deceived us.

Our drawing was made in July 1824, at the garden of the Horticultural Society, where the plant had been received, by means of Mr. John Damper Parks, from China. It is a delicate stove plant, requiring the cultivation applicable to similar subjects.

Stem creeping, scaly, branched. *Bulbs* oval, smooth, solitary, two-leaved, at the base sheathed by two scales. *Leaves* oblong-lanceolate, attenuate at the base, 5-nerved, smooth, spreading. *Flowers* solitary, terminal, with a short stalk, clothed with many scales. *Divisions of the flower;* exterior ovate-lanceolate, distinct, smooth; the lateral ones being placed under the lip; interior slender, linear, one-nerved. *Lip* distinct, hooded, jointed with the column, 2-crested, 3-lobed, the lateral lobes erect, minutely ciliated, the middle one blunt, fringed, from the crests to the sides of a brown colour. *Column* distinct, erect, obovate, winged, the gynizus hollowed out, 2-lipped: the lower lip lunate, the upper large, porrect, broad, at length incumbent upon the lower. *Anther* inserted below the end of the column, 2-celled: *cells* 2-valved, complete; in its front edge tooth-letted. *Pollen masses* 4, not lying side by side, but anterior and posterior; those behind being smaller than those in front; at their base powdery, and not glutinous or glandular.

J. L.

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PODALYRIA buxifolia.

Box-leaved Podalyria.

DECANDRIA *MONOGYNIA.*

Nat. ord. LEGUMINOSÆ.

PODALYRIA, L. *Cal.* 5-fidus, inæqualis, basi intrusa. *Corolla* papilionacea, *vexillo* majore. *Stamina* persistentia, basi connata. *Legumen* ventricosum, polyspermum. *Brown in Hort. Kew. ed. 2d.* 3. 6.

P. *buxifolia*, foliis simplicibus ovalibus supra glabris subtus sericeis, pedunculis unifloris, calycibus basi intrusis tomentosis coloratis. *Willd. sp. pl.* 2. 505.

Sophora buxifolia. *Retz. obs.* 1. *p.* 35.

Sophora pedunculata. *Thunb. prodr.* 79.

Podalyria, No. 4. *Lam. ill. t.* 327.

Podalyria pedunculata. *Pers. syn.* 1. 453.

Suffrutex, *ramis teretibus sericeis.* Folia *ovalia, plana, mucronulata, supra glabra, subtus sericea; infra-axillaria majora.* Flores *magni, purpurei, longè pedunculati,* pedunculo *sericeo, versus apicem articulato.* Calyx *campanulatus, bilabiatus, sericeus, labio superiore bilobo, inferiore* 3*-partito: laciniis ovato-lanceolatis, alis brevioribus.* Vexillum *explanatum, obcordatum.* Alæ *oblongæ, dimidiatæ, unguiculatæ, subpatentes, cum carina vexillo multo breviores.* Stamina *ascendentia, persistentia, inclusa,* 3 *superiora libera,* 7 *inferiora in phalange unâ semiconnata; stamen supremum stigmati applicitum, styli longitudine, inferiora stylo breviora.* Ovarium *villosum, polyspermum.* Stylus *glaber.* Stigma *simplicissimum.*

This species of Podalyria is nearly related to P. *myrtillifolia*; from which, however, it is constantly distinguishable, by the much greater length of its peduncle, and by the upper surface of its leaves being entirely destitute of pubescence. To these distinctions may be added, the greater size of the flowers of this species, and the villous, not closely pubescent, surface of its calyx.

A pretty greenhouse plant, said to have been introduced from the Cape of Good Hope, in 1790; but not noticed in the last edition of Hortus Kewensis. Our drawing was made at Mr. Colvill's Nursery last July.

An *undershrub* with round silky branches. *Leaves* oval, flat, with a little mucro, smooth above, silky beneath; those below the branchlets larger than the rest. *Flowers* large, purple, on long stalks; their stalk silky, jointed to-

wards the upper end. *Calyx* campanulate, two-lipped, silky; the upper lip 2-lobed, the lower 3-parted with ovate lanceolate segments shorter than the wings. *Vexillum* spread open, obcordate; *wings* oblong, halved, clawed, a little spreading, together with the keel much shorter than the standard. *Stamens* ascending, persistent, included; the three upper distinct, the lower half united into one band; the uppermost stamen is applied to the stigma, being as long as the style; the lower are shorter than the style. *Ovary* villous, many-seeded. *Style* smooth. *Stigma* quite simple.

J. L.

M. Hart del. Pub^d by J. Ridgway 170 Piccadilly March. 1. 1825. J. Watts sc.

PASSIFLORA gracilis.

Slender Passion-flower.

MONADELPHIA *PENTANDRIA.*

Nat. ord. PASSIFLOREÆ. Juss in ann. mus. 6. 102.
PASSIFLORA. *Suprà vol.* 1. *fol.* 13.

P. *gracilis,* foliis subcordatis trilobis, lobis rotundatis biglandulosis, pedunculis axillaribus solitariis, floribus apetalis. *Link enum.* 2. 182.

Annua. Caules *graciles, teretes, glaberrimi.* Folia *longè pedunculata, cordata, triloba, lobis rotundatis, biglandulosis, intermedio sæpius retuso.* Flores *solitarii, pallidè virides, foliis breviores.* Calyx *planus, rotatus, quinquepartitus, laciniis patentibus, a latâ basi lanceolatis, canaliculatis, radio longioribus.* Petala *nulla.* Radius *serie simplici polyphyllus, æqualis, patens: foliolis filiformibus.* Membrana *proxima fere a basi calycis interiore, incurva, plicata, margine eroso. Inter basin membranæ et stipitis medio adest annulus carnosus cyathiformis, lineâ elevatâ minore extus circumdatus.* Stipes *cylindraceus, erectus, nudus.* Stamina *brevia, recurva: antheris ovato-oblongis cordatis.* Ovarium *subsessile, ovale.* Styli *refracti, ovarii longitudine.* Semina *ovata, utrinque acuta, compressa, facie utrâque a centro foveato sex radiatâ.*

A curious species of Passion-flower, described, we believe, only in the very useful work above quoted, where it is erroneously marked as a shrub. It was raised, from seeds sent to this country by Professor Treviranus, at Mr. Colvill's nursery, where our drawing was made last August.

A little annual plant, producing its flowers in two months after being sown, and ripening its seeds readily. Its native country is uncertain.

With P. hirsuta, gracilis, augustifolia, suberosa, minima, peltata, and some others, it forms a very natural assemblage; remarkable for the absence of petals, and for the general minuteness of the parts of fructification.

Stems slender, round, quite smooth, as is every part of the plant. *Leaves* on long stalks, cordate, three-lobed; the *lobes* rounded, and having two glands; the middle lobe generally blunted. *Flowers* solitary, pale green, shorter than the leaves. *Calyx* flat, rotate, 5-parted; the segments spreading, from a broad base lanceolate, channelled, longer than the ray. *Petals* O. *Ray* many leaved, in a single row,

equal, spreading, with filiform divisions. The next *Membrane* arises almost from the base of the calyx, is incurved, plaited, and lacerated at the edge. In the middle, between the base of the membrane and the stipes, is a fleshy, cup-shaped ring, surrounded on the outside by a smaller elevated line. *Stipes* cylindrical, erect, naked. *Stamens* short, recurved; with ovate-oblong cordate anthers. *Ovary* subsessile, oval. *Styles* broken back, the length of the ovary. *Seeds* ovate, acute at each end, compressed, on either face marked with six elevated ridges, radiating from an excavated centre.

J. L.

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dilly March. 1. 1825.

S. Watts sc.

VICIA atropurpurea.

Dark Purple Vetch.

DIADELPHIA *DECANDRIA.*

Nat. ord. LEGUMINOSÆ.

VICIA. L. *Calyx* tubulosus, 5-fidus, aut 5-dentatus, dentibus supernè brevioribus. *Germen* basi hinc glandulosum: *stylus* filiformis; *stigma* sub apice transversè barbatum. *Legumen* oblongum, polyspermum, seminibus rotundis hilo laterali. Caulis *erectus, aut scandens, sæpè gracilis*; folia *pinnata;* stipulæ *parvæ;* flores *axillares,* 1-3 *sessiles, aut spicati pedunculati.* Juss. gen. 360.

V. *atropurpurea,* foliolis lineari-lanceolatis, racemis multifloris secundis, calycibus villosissimis; dentibus setaceis, leguminibus ovato-oblongis cernuis hirsutissimis. *Desf. atl.* 2. *p.* 164.

V. atropurpurea. *Willd. sp. pl.* 3. 1097.?

Herba *annua, decumbens,* 2-*pedalis, undique pubescens.* Folia *multijuga, parium circiter* 7, *foliolis ellipticis, planis, apice mucronulatis, petioli cirrho composito.* Stipulæ *semisagittatæ, nunc integræ, nunc versus basin denticulatæ.* Flores *atro-purpurei, in racemis axillaribus, multifloris, petioli longitudine.* Calyx *campanulatus, pilosus, dentibus subulatis villosis: inferioribus ferè alarum longitudine.*

This plant has been sent to England by Mr. Fischer, Director of the Botanic Garden at Gottingen, as the V. *atropurpurea* of Willdenow. Of that plant no authentic specimens have come within our observation; but upon referring to the Flora Atlantica of Desfontaines, from which work the species was adopted by Willdenow, we find that writer's description applies to our plant, as well as a definition and description of a wild plant on the northern coast of Africa can be expected to apply to a cultivated individual. The specific character of Willdenow, who appears to have seen a dried specimen of what he judged to be this plant, does not however, entirely agree with it, and his description of the stipules of his plant, which he describes as being finely cut, is so much at variance with what we have observed in the plant before us, that we cannot avoid feeling some doubts

whether two species may not be confounded under one name. V. *villosa* of Roth answers best to the present individual, but the leaves of that species are villous. In the absence, however, of sufficient materials for a decision of our own, we defer to the authority of Mr. Fischer, and adopt his reference to V. *atropurpurea*.

A beautiful hardy annual plant, our drawing of which was made in the garden of the Horticultural Society in August last. Seeds of it had been received from the Botanic Garden of Göttingen.

Stems decumbent, about two feet high, pubescent, as are all parts of the plant. *Leaves* of about seven pairs, with elliptical, flat, pointletted leaflets. The tendril of the leaf-stalk compound. *Stipules* half arrow-headed, sometimes entire, sometimes toothletted at the base. *Flowers* dark purple, in many-flowered, axillary racemes which are as long as the leaf-stalks. *Calyx* campanulate, hairy, with subulate, villous teeth; the lower of which are nearly as long as the wings.

J. L.

BREXIA spinosa.

Prickly-leaved Brexia.

PENTANDRIA *MONOGYNIA.*

Nat. ord. MYRSINEÆ.
POLYPETALÆ hypogynæ, incertæ sedis. *Pet. Th.*
GUTTIFERÆ? *Suprà fol.* 730.
BREXIA. *Pet. Th.* *Suprà fol.* 730.

B. *spinosa;* foliis marginatis spinoso-dentatis, costâ concolore.

For our drawing of this species of Brexia, which is distinct from that figured at fol. 730 of this work, we are obliged to Mr. John Lee, of the Hammersmith Nursery. The plant is not uncommon in the collections about London, where it is known by the name of Theophrasta, a genus which, although very distinct from this, we believe must be considered its co-ordinate.

In referring Brexia to the Natural Order Myrsineæ, we have been influenced by the following analogies. The æstivation of calyx and corolla is imbricate, as in Myrsineæ; the stamens are hypogynous, connected by a fleshy ring, and opposite the petals; the ovary is one-celled, with an indeterminate number of ovules; and the embryo is said to be immersed in copious albumen; all of which characters are quite those of Myrsineæ. We are not aware that this resemblance has been previously indicated.

A fine stove plant, supposed to be a native of Madagascar.

J. L.

NOTE.

At fol. 854, we took an opportunity of censuring what appeared to ourselves and others an improper change in the nomenclature of a plant well known in gardens. In the last number of the Botanical Magazine, the alteration to which we alluded, is explained by stating, that there is sufficient evidence in Mr. Lambert's Herbarium, and the second volume *(unpublished)* of the Flora Indica, that the name supposed by us to belong to the plant in question, has, in fact, been applied to a different species by Dr. Wallich. This assertion being made from the personal observation of our friend Dr. Sims, we cannot hesitate to place full reliance upon its accuracy. But if it had depended upon the authority of a work just published, called "Prodromus Floræ Nepalensis," we would have plainly said, that the general character of that work is not such as to entitle the author of it to our credence. Under the pretence of publishing the collection of Nepalese plants, formed by Dr. Hamilton during his residence in India, the writer of this book has had the extraordinary assurance to incorporate with them a considerable proportion of the plants collected in Nepal by Dr. Wallich, by him confided to individuals in this country, and at this moment publishing under that distinguished and indefatigable Botanist's own direction in India. What object can have been expected by this production we are unable to understand. The act cannot be justified upon the ground of the necessity of a work upon Nepalese plants; firstly, because, as we have already said, such a publication is at this moment in activity under the proper authorities in India; and, secondly, because such supposed necessity is not to be supplied by an imperfect account of something like a fourth or fifth part of the vegetation of the country. We do not suppose the Honourable Court of Directors of the East India Company, to whom this production is dedicated, will feel much flattered by being made the patrons of a work which is not only thus injurious to their servants, but written in so strange a Language, that we can scarcely guess at its name, unless, indeed, it be a specimen of some new kind of Latin, which may be written "with great facility, after three lessons of an hour each," without the incumbrance of previous education. That the author of this work should have had the vanity to suppose himself more competent to form an opinion upon Indian plants than Indian Botanists themselves, is what we, at least, never doubted; but that men of sense and character should be found in this country ready to countenance such a feeling, is most incredible and ridiculous.

How far Dr. Hamilton is complimented by the manner in which his plants have been published; what opinion that gentleman or others may form of the talent and modesty with which they have been arranged; why the numerous species from Dr. Hamilton himself, already extremely well published by the learned ***President of the Linnæan Society***, should, with the exception of the few in Exotic Botany, never have been referred to; upon what pretence the published names of Dr. Wallich, De Candolle, and others, should have been, in numerous instances, altered; and why, of the Nepalese plants in the Herbaria in London, few besides species of the most obvious character and easy determination should have been selected for the display of Mr. David Don's learning and abilities; these are all points well deserving the consideration of Botanists.

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SESBANIA picta.

Spotted Sesbania.

DIADELPHIA *DECANDRIA.*

Nat. ord. LEGUMINOSÆ.

SESBANIA, Pers. *Flores* racemosi. *Calyx* dentibus æqualibus. *Legumen* elongatum, subcylindraceum, læviusculum, bivalve. *Pers. syn.* 2. 316.

S. *picta;* foliis pinnatis, pinnulis linearibus obtusis, floribus racemosis, vexillo posticè picto. *Pers. syn.* 2. 316,
Æschynomene picta. *Cav. ic. IV. t.* 314.
Sesbania gracillima. *Hort.*

Caulis *teres, orgyalis, glaber, uti tota planta; ramis alternis.* Folia *alterna, pinnata, pinnulis utrinque ferè* 18, *linearibus, obtusis, aliquando emarginatis,* ½ *pollicem longis;* stipulæ *subulatæ, marcescentes.* Flores *racemosi, racemis pendulis; pedunculi partiales ad bracteolam brevem axillares, et prope calyces 2-bracteati; bracteolis subulatis deciduis.* Cal. *glaber, campanulatus, ore 5 dentato, dentibus brevibus subæqualibus.* Corolla *lutea papilionacea;* vexillum *orbiculatum, emarginatum, erecto-reflexum, posticâ superficie variegatum punctis maculisque minimis nigricantibus:* alæ *ovato-lineares, basi falcatæ; carina alis brevior basi et apice bifida.* Staminum *filamenta* 10, *alba, quorum unicum liberum, reliqua in vaginam fissam connexa, apice libera;* antheræ *ovatæ, fuscæ.* Germen *lineare, teres.* Stylus *subulatus, ascendens;* stigma *simplex.* Legumen *arcuatum, subteres, articulatum, articulis* 16, *plus minusve.* Semina *ovata.* Cav. l. c.

This is a very pretty plant, said by Cavanilles to be a native of New Spain and the Cape of Good Hope. The latter locality is probably erroneous. The plant from which our figure was taken was raised at Mr. Colvill's Nursery, from seed received from Mr. D. Lockhart of Trinidad, under the name of *Sesbania gracillima.* The plants are now six or seven feet high, and coming into full flower. They require the heat of the stove.

Stem rounded, as high as a man, smooth, as are all parts of the plant; *branches* alternate. *Leaves* alternate, pinnate, with about 18 pinnulæ on each side, which are linear, obtuse, sometimes emarginate, ½ an inch long; *stipules* subulate, withering. *Flowers* in pendulous racemes. *Bractes* subulate, deciduous. *Cal.* smooth, campanulate, with five short nearly equal teeth. *Standard* of the pale yellow corolla round, emarginate, from erect reflexed, mottled behind

with very small black dots and spots. *Ovary* linear, rounded. *Style* subulate, ascending. *Stigma* simple. *Pod* bowed, nearly round, with 16 joints, more or less. *Seeds* ovate.

J. L.

NOTE.

In the last leaf of Mr. David Don's " Prodromus Floræ Nepalensis " it is affirmed, that the Iris Nepalensis, communicated to us by Sir Abraham Hume as a native of Nepal, and published as such at our fol. 818, upon that gentleman's authority, is an European plant scarcely different from Iris germanica. Upon reference to the official documents which were sent to England with the plant in question, from the Botanic Garden, Calcutta, it appears that it was packed up, with other roots, on the 19th of November, 1821, and sent, under the name of Iris Nepalensis of Wallich, by William Leycester, Esq. then in charge of the garden, to Jacob Bosanquet, Esq. by whom it was presented to Sir Abraham Hume. We should not have felt it necessary to notice Mr. Don's assertion, if we ourselves had been alone concerned; but we cannot pass in silence an attack upon the veracity of a gentleman of rank, who has always been one of the most distinguished patrons of the Arts and Sciences in this country.

W. J. C. Esq. del. Pub by J. Ridgway 170 Piccadilly March 1. 1825. J. Watts sc.

MIMULUS parviflorus.

Small-flowered Mimulus.

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. SCROPHULARINEÆ.

MIMULUS. L. *Calyx* tubulosus, angulatus, 5-dentatus. *Corolla* personata; labio superiore bilobo, lateribus reflexo; inferiore trifido, laciniis subæqualibus. *Stamina* 4, didynama. *Antherarum* lobis divaricatis. *Stigma* bilamellatum. *Capsula* calyce inclusa, bilocularis, loculicido-bivalvis; valvis integris. Herbæ *erectæ, procumbentes, aut repentes, rarius* frutices. Folia *opposita.* Flores *axillares, solitarii, subspicati, aut rarius corymbosi, ebracteati, flavi, aurantiaci, violacei, aut albi.* Kunth synopsis. 2. 127.

M. *parviflorus,* procumbens, caule terete radicante piloso, foliis cordato-ovatis dentatis 5-nervibus, petiolis pilosis, pedunculis pilosis folio brevioribus.

Herba *annua, decumbens, ad nodos radicans; caulibus teretibus, carnosis, pilosis.* Folia *opposita, cordato-ovata, petiolata, serrato-dentata, 5-nervia, avenia, plana, pubescentia, petiolo amplexi-cauli, plano, canaliculato.* Flores *solitarii, axillares, longe pedunculati, pedunculo foliis breviore filiformi, glanduloso-piloso.* Calyx *campanulatus, pentagonus, 5-lobus, pilosus, lobis compressis, patentibus, superiore multo majore, falcato.* Corolla *tubulosa, infundibularis, calyce paulo longior, subtus bisulcata, 5-loba, lutea, bilabiata, lobis* $\frac{2}{3}$*, rotundatis, æqualibus, inferiore emarginato, paulo majore: fauce pilosâ, sanguineo maculata, lineis duabus elevatis.* Stamina 4, *inclusa, didynama, basi tubi inserta; filamenta filiformia; antheræ glabræ, hippocrepicæ, connectivo gibboso.* Ovarium *biloculare, polyspermum, disco nullo.* Stylus *filiformis.* Stigma *bilobum, lobis æqualibus, planis, tenuibus, dilatatis, paulò laceris: inferiore recurvo.*

A pretty new hardy annual species of Mimulus, raised in the garden of the Horticultural Society, from Chilean seeds presented by Francis Place, Esq. Our drawing was made during last summer.

It is extremely difficult to ascertain whether this plant be actually undescribed or not. It certainly is not referable to any published species, if we are to judge of them by specific characters and descriptions only; but it is not impossible, that as nearly all the South American species have been described from dried specimens, which in plants so delicate and vascular as this is, are much changed in their preparation, some allowance should be made for that cir-

cumstance. There being no better materials in this country than printed documents, we take those as they are; and will indicate the points in which our plant differs from any of the published species. From M. *glaberrimus* it differs, in not having a square stem, and in being hairy: from M. *andicola* in its flower-stalk being shorter than the leaves, and its stem not being square; and from M. *pilosiusculus* in stem, and in the outline of its leaves. To one of the two last we nevertheless suspect it may be referable.

A decumbent *annual*, rooting at the joints; with rounded, hairy, fleshy stems. *Leaves* opposite, cordate-ovate, stalked, toothed, 5-nerved without other veins, flat, downy, with a stem-clasping, flat, pilose, channelled petiole. *Flowers* solitary, axillary, on long stalks, which are shorter than the leaves, filiform, and covered with glandular hairs. *Calyx* campanulate, 5-cornered, 5-lobed, hairy; its lobes compressed, spreading, the upper being much larger than the rest, and falcate. *Corolla* tubular, funnel-shaped, a little longer than the calyx, with two furrows beneath, 5-lobed, yellow, 2-lipped: lobes $\frac{2}{3}$, rounded, equal, the lower emarginate, and a little the largest. *Orifice* hairy, with two elevated lines, and sprinkled with blood-coloured dots. *Stamens* 4, included, didynamous, inserted at the base of the tube; *filaments* filiform; *anthers* smooth, shaped like a horse-shoe, with a gibbous connectivum. *Ovary* 2-celled, many-seeded, with no discus. *Style* filiform. *Stigma* 2-lobed, with equal, flat, thin, dilated lobes of which the lowest is recurved.

J. L.

HIBISCUS Richardsoni.

Rough-leaved shrubby Bladder-Ketmia.

MONADELPHIA *POLYANDRIA.*

Nat. ord. MALVACEÆ *Juss. D.C. Prodr.* 1. 429.
HIBISCUS. L. *Vide suprà fol.* 806.

Sect. VIII. *Trionum,* Medic. Carpella polysperma. Semina glabra. Corollæ expansæ. Involucellum polyphyllum. Calyx demum vesiculosus inflatus. *Dec. l. c.*

H. *Richardsoni,* suffruticosus, foliis hirsutis quinquelobis: lobis lineari-oblongis grossè dentatis; posticis nanis, calyce villosissimo involucro longiore.

H. Richardsoni. *Sweet in Colv. Cat. ed.* 3. *ined.*

Suffrutex 3-4 *pedalis, caule erecto, terete, stellatim hirsuto, versus summum villosissimo.* Folia 5-*loba, rugosa, undique hirsuta, lobis lineari-oblongis, grossè dentatis, intermedio longissimo; posticis abbreviatis, pedunculo folio breviore villoso.* Flores *solitarii, axillares, folio breviores.* Involucra *polyphylla, calyce breviora, foliolis linearibus villosis.* Calyx *campanulatus,* 5 *lobus, undique villis implexis strigosus.* Corolla *expansa, flava, fundo purpureo.*

This beautiful addition to the Trionum section of Hibiscus was raised at Mr. Colvill's Nursery, from seeds collected by Mr. John Richardson, at Port Macquarrie, in New South Wales. We are informed by Mr. Sweet, that he has named it after its discoverer. We long ago received specimens of it from Mr. Charles Frazer, collected upon the banks of Nepean river.

It is half shrubby, growing three or four feet high during the summer; and, in the greenhouse, dying down within a foot of the ground in winter. It may be propagated by seeds, of which Mr. Colvill's plant ripened two capsules last summer. It flowers during the summer months.

Stem erect, round, covered with stellate hairs, which are very long towards the summit. *Leaves* 5-lobed, rugose, hairy on both sides; their *lobes* linear-oblong, coarsely toothed; the intermediate very long, those behind very much shorter. *Peduncle* villous, shorter than the leaf. *Flowers* solitary, axillary, shorter than the leaves. *Invo-*

lucres many-leaved, shorter than the calyx, with linear villous leaflets. *Calyx* campanulate, 5-lobed, shaggy all over with interwoven hairs. *Corolla* expanded, yellow, with a purple eye.

J. L.

CORRIGENDA.

Fol. 862. In the generic character of Glossula tentaculata, for "*tripartita,*" read "*bipartita.*"

Fol. 865. In the generic character of Nolana, for "*conferruminata, nunc discreta,*" read "*conferruminatæ nunc discretæ.*"

The reader is requested to correct these typographical errors, as they affect the meaning of particular passages.

At fol. 856 we stated, upon the authority of the Hortus Bengalensis, that Cassia purpurea is an annual. We are now informed by Mr. Sweet, that it is a shrub, three or four feet high.

Pub. by J. Ridgway 169 Piccadilly April. 1. 1825.

AMARYLLIS solandræflora. *β. vittata.*

Striped Amaryllis Solandræflora.

HEXANDRIA *MONOGYNIA.*

Nat. ord. AMARYLLIDÆ.
AMARYLLIS. V. supra, vol. 1. *fol.* 23.

A. *solandræflora ;* 2-4-flora, perianthio infundibulari subregulari, tubo gracillimo intus nudo limbo multò longiore, stigmate obtusè 3-lobo. *Lindley, coll. bot. t.* 11.

β. vittata.

Folia *lorata, glaucescentia, sub anthesi erecta, scapo multoties breviora, postice recurva, margine paululum cartilagineo.* Scapus *cylindraceus, fistulosus, glaucus, subbipedalis.* Spatha *viridis, erecta, pedunculis duplò longior.* Flores *sulphurei, immaculati, pedicellati, cernui.* Perianthium 9-*unciale, infundibulare, subregulare, laciniis latis, ovato-lanceolatis, striatis : infimâ angustiore; marginibus infra faucem nudam cum tubo connatis.* Stamina *declinata, fauce inserta, limbo paulo breviora, ea laciniis interioribus opposita longiora.* Ovarium *trigonum,* 3-*loculare, polyspermum.* Ovula *plana, disticha.* Stylus *filiformis, staminibus paulo longior.* Stigma *obtusè trilobum.* Lindl. l. c.

A handsome variety of this most distinct species of Amaryllis, originally imported from Cayenne, about five years ago, by Mr. Brookes, of the Ball's Pond Nursery. It differs from the type of the species, principally, in having a faint crimson stain along the axis of the outer segments of the perianthium; and in the style being longer than the stamens.

For our figure we are obliged to James Henry Slater, Esq. of Newick Park, near Uckfield; from whose garden the plant was communicated some time ago*.

In the work from which our description has been extracted, it is stated, that "Notwithstanding the great and striking difference between this plant and Amaryllis vittata

* In our article 867 under Eranthemum strictum, for John, *read,* James Henry Slater, Esq. Mr. Slater informs us he received that plant, through a friend, from the Botanic Garden at Calcutta.

in the flowers, there is an astonishing similarity in the leaves, by which alone the plants certainly cannot be distinguished."

Leaves lorate, somewhat glaucous, at the time of flowering erect, and much shorter than the scape, a little curved backwards, with a somewhat cartilaginous edge. *Scape* cylindrical, glaucous, fistular, about two feet high. *Spatha* green, erect, twice as long as peduncles. *Flowers* sulphur-coloured, without spots, stalked, cernuous. *Perianthium* nine inches long, funnel-shaped, somewhat regular, with broad, ovate-lanceolate, striated segments: of which the lowest is the narrowest; their edges united with the tube below the orifice, which is naked. *Stamens* declinate, inserted in the orifice, a little shorter than the limb, those opposite the inner segments longest. *Ovary* 3-cornered, 3-celled, many-seeded. *Ovules* flat, distichous. *Style* filiform, a little longer than stamens. *Stigma* bluntly 3-lobed.

J. L.

Ridgway 169 Piccadilly Ap. 1. 1825.

ANTHERICUM canaliculatum. *β. rufum.*

Rufous Hairy Anthericum.

HEXANDRIA *MONOGYNIA.*

Nat. ord. ASPHODELEÆ.
ANTHERICUM. *Supra vol. 7. fol.* 564.

A. *canaliculatum;* foliis subcarnosis pilosis ensiformi-triquetris latere angustiore canaliculatis, scapo simplice. *Hort. Kew. ed.* 1. 1.448.
A. canaliculatum. *Willd. sp. pl.* 2. 141. *Hort. Kew. ed.* 2. 2.269.
Phalangium canaliculatum. *Pers. syn.* 1.369.
β. rufum; floribus rufo-vittatis pedicellisque pilosis.
Anthericum canaliculatum. *Bot. mag.* 1124.

Scapus *teres, pilosus.* Racemus *multiflorus;* pedunculi *teretes, glabri, vix unciales.* Bracteæ *lanceolatæ, acuminatæ, sub anthesi pedunculo breviores, glabræ.* Petala *patula, alba, dorso sordide virescentia, semiuncialia.* Filamenta *subulata, alba, petalis breviora, hispidiuscula, tria alterna minus hispida.* Stylus *longitudine staminum.* Hort. Kew. l. c.

Obs. In varietate nostrâ scapus humilior, sepala dorso rufa pilosa, nec sordidè viridia, pedicelli pilosi, filamenta glabra.

We were not aware, that the subject of this article had been already published in the Botanical Magazine, until after our plate was in the hands of the colourers. As the drawing was made several years since by Mr. Sydenham Edwards, representing the plant in a more perfect manner, and in a different state from the figure in the Botanical Magazine, we hope to stand excused for the oversight.

From the original state of the species this variety differs, as has been already remarked by Mr. Ker, in the pedicels and interior of the flower being hairy, and marked with a rufous, not green stripe. We have therefore separated it, as a variety of which the characters are so distinct as to make it advisable that it should be permanently distinguished.

It is a native of the Cape of Good Hope, whence it was introduced, upon the authority of the Hortus Kewensis, in

1774. Its flowers appear, in the greenhouse, in March and April.

Scape, in the original variety, rounded, hairy. *Raceme* many-flowered, with rounded, smooth pedicels, scarcely an inch long. *Bracts* lanceolate, acuminate, about flowering-time shorter than the peduncles, and smooth. *Sepals* spreading, white, dull green at back, half an inch long. *Filaments* subulate, white, shorter than the sepals, a little hispid, the thin alternate ones less hispid. *Style* the length of the stamens.

In the present variety the scape is more dwarf, and, besides the other characters indicated above, the filaments are smooth.

J. L.

HIBISCUS unidens.

One-toothed Hibiscus.

MONADELPHIA *POLYANDRIA.*

Nat. ord. MALVACEÆ *Juss. D.C. Prodr.* 1. 429.
HIBISCUS. L. Vide supra, fol. 806.

Sect. VI. *Abelmoschus.* Carpella polysperma. Semina glabra aut in dorso linea subvillosa. Corollæ expansæ. Involucella foliolis 8-15 integris constantia. *Dec. l. c.*

§ 1. *Caule tuberculis aculeato.*

H. *unidens;* caule sparsim aculeato et piloso, foliis glabriusculis eglandulosis grossè dentatis, nunc palmato-5-partitis, nunc subrotundis, floribus pedunculatis, involucelli foliolis calycis longitudine intus dente unico infrà apicem appendiculatis.

Caules *erecti, virides, pilis mollibus, recurvis vestiti, et aculeis parvis, sparsis, abbidis armati.* Folia *longissime petiolata, grossè dentata, glabriuscula, subtus eglandulosa, biformia; nunc palmato-5-partita; lobis lanceolatis; nunc subrotunda, indivisa.* Petioli *subtus aculeati, rigidi, foliis inferioribus multo longiores.* Stipulæ *membranaceæ, subulatæ.* Flores *magni, sulphurei, in fundo fusco-purpurei: pedunculo molli, piloso, inermi, petiolo multo breviore.* Involucelli *foliola* 8, *hispida, patentia, calyci subæqualia, lineari-lanceolata, infra apicem paulò constricta, et ibi dente unico interiore aucta.* Calyx 5-*lobus, undique pilis mollibus recurvis, et aculeolis hispidus; lobis acuminatis, trinervibus.* Corolla *expansa, ad marginem undulato-crispa, citò marcescens.* Ovarium *ovatum, sericeum,* 5-*loculare, loculis* 4-*spermis, ovulis uniformibus glabris.*

A new species of Hibiscus, raised at Mr. Colvill's Nursery, from Brazilian seed. To the *Hibiscus cannabinus* of the East Indies it is nearly related; but, independently of the geographical differences between our species and that plant, there are some curious external discriminative marks, by which the two are decidedly to be distinguished. In *Hibiscus cannabinus,* the leaf-stalks and lobes of the calyx are each furnished with a gland, and the leaves are not shorter than their stalks; in *Hibiscus unidens,* there is no gland upon either the stalks of the leaves, or the lobes of the calyx; and the petioles of the lower leaves are very long and rigid. In the latter the flowers are stalked, and

the leaves of the involucre have each a little tooth-like appendage upon their inner surface; while in the former the flowers are sessile, and there is no tooth-like appendage upon the involucral leaves.

Our drawing was made last summer, at Mr. Colvill's Nursery; where the plant was cultivated in the stove.

Stems erect, bright green, covered with soft recurved hairs, and small, scattered, whitish prickles. *Leaves* on long stalks, coarsely toothed, smoothish, without glands beneath, of two forms; sometimes palmate-5-parted, with lanceolate lobes; sometimes roundish, undivided. *Petioles* prickly beneath, rigid, much longer than the lower leaves. *Stipules* membranous, subulate. *Flowers* large, sulphur-coloured, brownish purple at bottom, with a soft, hairy, unarmed peduncle, much shorter than the petiole. *Leaflets* of the involucre 8, hispid, spreading, nearly equal to the calyx, linear-lanceolate, below the end a little contracted, and there furnished with a tooth-like appendage on their inner surface. *Calyx* 5-lobed, covered all over with soft recurved hairs, and hispid with little prickles; the lobes acuminate, 3-lobed. *Corolla* spread open, a little wavy at edge, quickly withering. *Ovary* ovate, silky, 5-celled, with four seeded cells, and smooth uniform ovules.

J. L.

879.

Pub. by J. Ridgway 169 Piccadilly Ap 1. 1825. S. Watts sc.

ERANTHEMUM crenulatum.

Crenulate Eranthemum.

DIANDRIA *MONOGYNIA.*

Nat. ord. ACANTHACEÆ.
ERANTHEMUM. *V. supra. vol.* 10. *fol.* 867.

E. *crenulatum;* suffruticosum erectum glaberrimum, foliis ovato-lanceolatis acuminatis obsoletè crenulatis, spicâ verticillatâ nudâ terminali.
E. crenulatum. *Wall. in litt.*

Suffrutex 1-1½-*pedalis, undique glaberrimus, erectus, ramis teretibus.* Folia *petiolata, ovato-lanceolata, obsoletè crenulata, acuminata, glabra, supra atro-viridia, subtus pallida.* Spica *terminalis, erecta, floribus in verticillis nudiusculis, distantibus, dispositis; verticillo inferiore foliis* 2 *parvis bracteato.* Flores *pallidè lilacini.* Calyx et bracteæ *vix ullam partem corollæ tegentes.* Corolla *hypocrateriformis, tubo gracili, arcuato, clavato, laciniis subæqualibus, ovatis, planis fere triplo longiore.* Stamina *inclusa.*

This pretty little species of Eranthemum was sent to England in 1824, by Dr. Wallich, under the name we have adopted; and a living plant was presented by the Honourable Court of Directors of the East India Company, to the Horticultural Society; in whose garden, at Chiswick, our figure was taken in October last.

It appears distinct from any of the species described in the Flora Indica, and is, we believe, a native of Sylhet. In this country it flowers, in the stove, during the winter months; and is propagated by cuttings.

An erect under-shrub, from a foot to a foot and half high, with round branches. *Leaves* stalked, ovate-lanceolate, obsoletely crenulate, acuminate, smooth; above dark-green, beneath paler. *Spikes* terminal, erect, with the flowers disposed in nearly naked distant whorls; the lowest whorl being subtended by two small leaves. *Flowers* pale lilac. *Calyx* and *bracteæ* scarcely covering any part of the corolla. *Corolla* hypocrateriform, with a slender, bowed, clavate tube, nearly three times as long as the almost equal, ovate, flat segments. *Stamens* included.

J. L.

886.

LISIANTHUS longifolius.

Long-leaved Lisianthus.

PENTANDRIA *MONOGYNIA.*

Nat. ord. GENTIANEÆ.

LISIANTHUS, L. *Calyx* subcampanulatus, quinquefidus; laciniis margine diaphanis et incumbentibus. *Corolla* infundibuliformis; limbo 5-fido, patente, æquali; fauce imberbi. *Stamina* 5, paulo inæqualia, ascendentia (?). *Antheræ* sagittatæ. *Stylus* elongatus. *Stigma* bilamellatum. *Capsula* bilocularis, septicido-bivalvis. *Semina* angulata, haud marginata. —Herbæ, *rariùs* frutices, foliis *oppositis, subsessilibus, integerrimis;* floribus *terminalibus, solitariis, spicatis, corymbosis, umbellatis aut paniculatis, viridibus, cærulescentibus, purpurascentibus, aut flavis.* Kunth. synops. 2. 270.

L. *longifolius;* foliis lanceolatis acutis pubescentibus, caule terete. *Willd. sp. pl.* 1. 826.

Rapunculus fruticosus linifolius, &c. *Sloane jam.* 58. *hist.* 1. *p.* 157. *t.* 101. *f.* 1.

Lisianthus erectus foliis lanceolatis, floribus singularibus terminalibus. *Browne jam.* 157. *t.* 9. *f.* 1.

L. longifolius. *Linn. mant.* 43. *Lam. ill. t.* 107. *f.* 1. *Pers. syn.* 1. 281. *Ait. Kew. ed.* 2.

Suffruticosa, *ramosa, 2-pedalis.* Caules *teretes, glanduloso-pilosi.* Folia *opposita, lanceolata, petiolata, pubescentia (præcipuè subtus).* Stipulæ *margo integer inter folia.* Flores *terminales, subterni, ad basin bibracteati.* Calyx *inferus, pentaphyllus, sepalis angustis, acutis, dorso carinatis, margine membranaceis.* Corolla *pallide lutea, infundibuliformis, versus basin constrictus, sursum paulo ampliatus, 5-lobus, lobis ovato-lanceolatis, acutis, patentibus.* Stamina *ascendentia, corollæ longitudine.* Antheræ *ellipticæ.* Stylus *filiformis, corollæ longitudine.* Stigma *capitatum, bilobum.* Capsula *ovata, acuta, calycis longitudine, stylo persistente, non spiraliter torto, mucronata.*

Our drawing of this species of Lisianthus was made at Mr. Lee's Nursery in August last. It is a pretty half-shrubby stove plant, producing its bright yellow flowers in abundance, and easily propagated by cuttings.

Said to have been introduced from Jamaica, in 1793; but not often seen in collections in this country. The specific name has not been very happily applied.

We perceive no difference between the cultivated plant and our wild specimens from Jamaica, beyond a greater degree of pubescence upon the latter.

" This elegant little plant is not uncommon in the road to Sixteen Mile Walk, and is frequently met with in the mountains of St. Ann's. It grows in a dry, sandy, but cool soil. The whole plant makes an elegant appearance in the woods."—*Browne.*

Half-shrubby, branched, about two feet high. *Stems* round, covered with glandular hairs. *Leaves* opposite, lanceolate, stalked, pubescent, especially beneath. *Stipules* an entire rim between the leaves. *Flowers* terminal, about three, with two minute bracts at the base. *Calyx* inferior, 5-leaved; *sepals* narrow, acute, keeled at back, with a membranous edge. *Corolla* pale yellow, funnel-shaped, contracted towards the base, a little enlarged upwards, and 5-lobed; the *lobes* ovate-lanceolate, acute, spreading. *Stamens* ascending, the length of corolla. *Anthers* elliptical. *Style* filiform, the length of corolla. *Stigma* capitate, 2-lobed. *Capsule* ovate, acute, the length of calyx, pointed with the persistent style, which is not spirally twisted.

J. L.

CATHARTOCARPUS Bacillus.

Four-leaved Cathartocarpus.

DECANDRIA *MONOGYNIA.*

Nat. ord. CÆSALPINIEÆ. *R. Br.*

CATHARTOCARPUS. *Pers.* (1805). Bactyrilobium W. (1809). *Calyx* 5-partitus, deciduus. *Corolla* regularis, 5-petala. *Filamenta* inferiora arcuata. *Legumen* longum, teres, lignosum, pluriloculare: loculis pulpâ farctis. *Pers. syn.* 1. 459.

C. *Bacillus;* foliis bijugis ovatis obliquis, glandula obtusa inter infima, racemis axillaribus pedunculatis, siliqua terete longa. *Lin. suppl.* 231. sub Cassia.

Cassia bacillaris, *Willd. sp. pl.* 2. 514. *Hortus Bengalensis* 31. *Link. enum. ber.* 1. 406.

Cathartocarpus Bacillus. *Pers. syn.* 1. 459.

Frutex *duodecim pedum glaberrimus.* Folia *alterna, petiolata, bijuga.* Foliola *latere interiore obliqua, utrinque glaberrima, inferiora exquisite ovata, superiora magis elongata.* Glandula *conica, obtusa, inter foliola inferiora.* Stipulæ *nullæ, (minimæ, subulatæ, deciduæ).* Racemi *axillares, solitarii, pauciflori, erecti.* Pedicelli *dependentes, angulati.* Flores *aurantiaci, mediocres.* Legumen *omnino* C. fistulæ, *ut distingui nequeat, subcurvum, cylindricum, glaberrimum, acumine filiformi terminatum, longitudine pedali, interius isthmis interceptum, quod externe tamen non apparet.* L.

Our drawing of this plant was made many years ago, by the late Mr. Sydenham Edwards; but we do not know in what collection. It has not been figured previously, and does not appear in the last edition of the Hortus Kewensis. It is a shrubby plant, native of Surinam; whence specimens were sent to Linnæus, by Dalberg.

We observe, that Dr. Carey refers to this genus, besides the common *Cassia fistula, Cassia rhombifolia* of Roxburgh, and *C. nodosa* and *marginata* of the same botanist, with the *Cassia bacillus* of Gœrtner. It is worthy of notice, that the last species is stated in the Hortus Bengalensis to be a Malayan plant, and the *C. bacillaris* of the Calcutta Garden (which we know, from specimens from that establishment, to be the plant before us), to be a species introduced to

the garden from Surinam, by Sir C. Younge. It therefore appears, that the Malayan *C. bacillus* requires some further examination, as it will probably be found to constitute an additional and unsuspected member of the genus Cathartocarpus.

We are not aware of the claim which Willdenow's name, Bactyrilobium, has to be retained for this genus, in preference to that of Cathartocarpus; which seems to have been published four years previously.

A shrub twelve feet high, quite smooth. *Leaves* alternate, stalked, of two pairs. *Leaflets* oblique on their inner edge, smooth on both sides; the lower perfectly ovate, the upper more elongated. *Gland* conical, obtuse, between the lower leaflets. *Stipules* very small, subulate, deciduous. *Racemes* axillary, solitary, few-flowered, erect. *Pedicels* hanging down, angular. *Flowers* orange, middle-sized. *Pod* exactly that of *C. fistula,* so that it cannot be distinguished; somewhat curved, cylindrical, very smooth, terminated by a filiform point; more than a foot long, intercepted inside by partitions, which are not visible externally.

J. L.

882.

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J. Watts sc.

LIPARIS foliosa.

Many-leaved Liparis.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDEÆ. Sect. V. Malaxideæ. *Lindl. supra, fol.* 825, *in textu. Anthera* terminalis, opercularis, decidua. *Pollinia* 2, v. 4 per paria cohærentia, cereacea, filo et glandulis nullis.—Herbæ *sæpissimè terrestres, foliis membranaceis.* Scapi *terminales.* Flores *herbacei, inconspicui.* Labellum *sæpius posticum.*

LIPARIS, Rich. Labellum planum, explanatum, integrum, variè versum. Columna alata. *Pollinia* 4.

L. *foliosa;* foliis radicalibus inæqualibus lanceolatis integris acutis carnosis racemo subæqualibus, labello oblongo retuso, clinandrio integerrimo.

Herba *terrestris, acaulis, bulbis nullis.* Folia 3, *v.* 4, *suberecta, crassa, oblongo-lanceolata, subcomplicata, glaberrima, acuta; ultimo spicæ longitudine; extus ad basin foliis duobus abortivis vaginata.* Racemus *terminalis, erectus,* 8-12-*florus.* Flores *parvi, virides, distantes, undique versi.* Ovarium *bractea multoties longius, cum pedicello articulatum.* Perianthium *explanatum, sepalis liberis, subæqualibus, lineari-lanceolatis, reflexis;* labello *viridi-luteo, libero, oblongo, erecto-patente, integro, retuso.* Columna *tenuis, erecta, libera, marginata,* clinandrio *marginato, integro.* Anthera *bilocularis, terminalis, opercularis, decidua.* Pollinia 4, *cereacea, filo nullo, v. saltem citissimè obsoleto.*

For this curious new species of Liparis we are obliged to Robert Barclay, Esq. by whom it was received from the Isle of France in 1823. Our drawing was made last August, from a plant cultivated in the stove of that gentleman's collection; which is unquestionably the most extensive and useful ever formed by a private individual in this country.

The genus Liparis, which was established by the late M. Richard upon the Ophrys Löselii of Europe, has now assumed an extent which certainly could not have been contemplated by that most excellent and learned botanist, who appears to have been acquainted only with the European Ophrys and the *Malaxis liliifolia* of N. America.

The following is the arrangement which we propose for the ten species of Liparis, at present known to us:

LIPARIS, *Richard.* (Genus Malaxide *certissime* distinctum. *R.*)

Sect. I. Folia membranacea. Terrestres.

1. L. *Löselii,* Rich.
Ophrys Löselii, *L.*
Malaxis Löselii, *Smith.*
Hab. in Europæ borealis palustribus. (v. v. sp.)

2. L. *liliifolia,* Rich.
Ophrys liliifolia, *Bot. rep.*
Malaxis liliifolia. *Br. in Ait. Kew. ed.* 2.
Hab. in Americæ septentrionalis palustribus. (v. v. sp.)

3. L. *nepalensis;* foliis oblongis acuminatis membranaceis, caudice repente bulboso, sepalis interioribus tenuissimis, labello acuminatissimo.
Hab. in Nepaliâ, *Wallich.* (v. s. sp.) *Facies* Liparidis liliifoliæ. *Bulbi* foliorum vaginis marcescentibus tecti. *Folia* 2-na, plana, oblonga, acuminata, nervosa, membranacea, spicâ paulo breviora. *Sepala* filiformia, tenuissima; *labello* maximo, obovato, acuminatissimo.

4. L. *flavescens.*
Malaxis flavescens. *Pet. Th. orch. afr. t.* 25.
Hab. in Mauritio, et Insulâ Borboniæ.

5. L. *purpurascens.*
Malaxis purpurascens. *Pet. Th. l. c. tt.* 26 *et* 27.
Hab. in Mauritio, et Insulâ Borboniæ.

6. L. *bituberculata.*
Cymbidium ? bituberculatum. *Hooker, ex. fl. t.* 116.
Hab. in Nepalia (v. s. c. in herb. Hooker).

Sect. II. Folia carnosa. Parasiticæ.

Cestichis Pet. Th. et Lindl. supr. 837, *in textu.*

7. L. *foliosa.* Supra.
Hab. in Mauritio.

8. L. *disticha.*
Malaxis disticha. *Pet. Th. l. c. t.* 89.
Hab. in Mauritio et Insulâ Borboniæ.

9. L. *cæspitosa.*
Malaxis cæspitosa. *Pet. Th. l. c. t.* 90.
Hab. in Mauritio et Insulâ Borboniæ.

10. L.? *reflexa.*
Cymbidium reflexum. *Brown, prodr.* 331.
Hab. in Novâ Hollandiâ ad portum Jackson (v. s. sp. sine polliniis).

At our folio 825 we have noticed the other genera of *Malaxideæ,* to which we have at present none to add.

J. L.

169 Piccadilly May.1.1825.

CALLICARPA rubella.

Pink-flowered Callicarpa.

TETRANDRIA *MONOGYNIA.*

Nat. ord. VERBENACEÆ.
CALLICARPA. Suprà vol. 10. *fol.* 864.

C. *rubella;* foliis sessilibus obovatis acuminatis cordatis utrinque tomentosis, ultra medium dentatis, cymis pedunculatis bipartitis villosis.

Suffrutex *erectus, undique pilosus, in ollâ* 2 *pedalis.* Rami *teretes, densi, tomentosi.* Folia *decussata, plana, luteo-viridia, sessilia, obovata, acuminata, versùs basin paululum constricta, basi cordata, ultra medium æqualiter dentata, subtùs magis tomentosa,* 4-5 *uncias longa,* 2-2½ *uncias lata.* Cymi *tomentosi, multiflori, dichotomi, in pedunculo semunciali insidentes.* Bracteæ *subulatæ.* Calyx *parvus, densè tomentosus, obtusissimè* 4-*dentatus.* Corolla *rosea, brevis, infundibularis, calyce longior, laciniis erectis, obtusis.* Stamina 4, *exserta.* Antheræ *majusculæ, oblongæ, basi emarginatæ.*

This species of Callicarpa is well distinguished from all others of the genus by the peculiar outline of its leaves, which are sessile and approaching almost to panduriform, with a long taper point. It was brought from China, in 1822, for the Horticultural Society, by the late Mr. John Potts. Our drawing was made in the Chiswick Garden, in May last.

A greenhouse *undershrub* about two feet high, propagated by cuttings. It is covered all over with hairs, which are for the most part simple. The *stems* are round, and closely furred. The *leaves* cross each other, are flat, yellowish-green, sessile, obovate, with a taper point, a little contracted towards the base, where they are cordate; beyond the middle they are regularly toothed, and are more densely downy below than above; their length is from 4 to 5 inches; their breadth from 2 to 2½. The *cymes* are downy, many-flowered, dichotomous, and are placed upon a stalk

about half an inch long. The *bracts* are subulate. The *calyx* is small, densely downy, with 4 very blunt teeth. *Corolla* pink, short, funnel-shaped, longer than the calyx, with erect, obtuse segments. *Stamens* 4, exserted. *Anthers* large, oblong, emarginate at base.

J. L

Pub by J. Ridgway 169 Piccadilly May. 1. 1825.

J. Watts. sc.

ENKIANTHUS quinqueflorus.

Red-edged Enkianthus.

DECANDRIA *MONOGYNIA.*

Nat. ord. Ericeæ.

ENKIANTHUS Lour.—Cal. persistens, 5-fidus. *Corolla* campanulata, 5-fida, facilè 5-partibilis, basi foveis 5 nectariferis *calycis* segmentis alternis. *Stamina* basi corollæ inserta, pilosa. *Antheræ* bicornes. *Ovarium* 5-loculare, polyspermum. *Stigma* simplex. *Capsula.*——*Frutices Chinæ,* foliis *sparsis,* floribus *terminalibus, bracteis* plurimis coloratis circumdatis. *Flores* rosei.

E. *quinqueflorus;* foliis planis ovalibus acutis marginatis longè petiolatis, sepalis ovato-lanceolatis ovarii longitudine, foveis diaphanis coloratis.

E. quinqueflorus. *Lour. fl. cochinch.* 1.339? *Sims Bot. Mag.* 1649.

Melidora pellucida. *Salisbury in Hort. Trans.* 2.156.

Suffrutex *ramis nudis, erectis, subsimplicibus, ad apicem foliosis.* Folia *ovalia, utrinque acuta, plana, glabra, longè petiolata, ad margines et venas rubra.* Umbellæ *terminales, inter bracteas, et folia nova, numerosas, pallidas, spatulato-lanceolatas, flores æquantes.* Flores *solitarii, penduli in longos pedicellos clavatos, rosei.* Calyx *5-fidus, laciniis ovato-lanceolatis, aristatis, glaberrimis.* Corolla *monopetala, campanulata, humerosa, 5-dentata, dentibus obtusiusculis, paululum ciliatis, ad basin foveis 5 nectariferis, diaphanis, coccineis, intus lævigatis.* Stamina 10, *dimidiam corollæ longitudine, basi corollæ inserta, basibus dilatatis approximatis.* Filamenta *c latâ basi subulata, pilosa.* Antheræ *glabræ, bicornes, poro duplice apicis dehiscentes.* Ovarium *oblongum, 5-loculare, polyspermum.* Stylus *persistens, filiformis, corollæ longitudine.* Stigma *simplex.*

The genus *Enkianthus* was instituted by Loureiro with a character which, from the singular manner in which that worthy Botanist understood the parts of fructification, mistaking coloured bracteæ for calyx, young leaves for corolla, and the real flower for the floscule of a compound aggregation of florets, was quite unintelligible to Willdenow, who undertook the task of publishing a German edition of the *Flora Cochinchinensis.* When, however, the plant of which the annexed figure is a representation first produced its flowers in England, in the year 1814, the identity between it and the *Enkianthus* was recognised by the learned Botanists under whose care the Banksian Herbarium was at that time placed; and the identification was not prevented

by the statement of Loureiro that his plant produced a berry, the fruit of the cultivated plant being at that time unknown.

It first produced its flowers in 1814, at Mr. Knight's Nursery, Chelsea, and drawings were made at the same time for the Horticultural Society, and for the Botanical Magazine. The figure made for the Horticultural Society gave rise to a paper upon the subject read before that body on the 5th April, 1814, by R. A. Salisbury, Esq., in which the plant was called *Melidora pellucida*, a name which, it was stated upon the authority of certain seeds given by a Spanish nobleman to Mr. Salisbury, had been applied to the plant by Noronha, a Spanish Botanist. In the month of June of the same year the figure made for the Botanical Magazine was published under the name of *Enkianthus quinqueflorus*. In neither of these publications was any notice taken of the fruit, although, if Loureiro's statement of its nature had been correct, the genus would barely have been distinguishable from Arbutus. That the Editor of the Botanical Magazine should not have adverted to it, would, of course, have arisen from his not having seen it; but that Mr. Salisbury, before whom it appears that fruit had been placed for examination, should have taken no notice of its nature, is more singular. When, however, it is remembered that M. Noronha, from whom Mr. Salisbury's seeds were said to have come, died more than twenty years before Mr. Salisbury could have received his seeds, it becomes probable that some mistake existed, as to the quarter from whence the seeds given to Mr. Salisbury by the Spanish nobleman above alluded to actually came; otherwise we cannot conceive how the difference between the real nature of the fruit, which is a *capsule*, and the reported nature of it, which according to Loureiro's account was a *berry*, could have escaped the observation of so experienced a Botanist as Mr. Salisbury. From Chinese drawings in the Banksian Library it appears that the fruit of Enkianthus is a *capsule* crowned by the *persistent style*, and not a *berry*, as stated by Father Loureiro.

J. L.

ENKIANTHUS reticulatus.

Netted Enkianthus.

DECANDRIA *MONOGYNIA.*

Nat. ord. Ericeæ.
ENKIANTHUS. *Vide suprà vol.* 11. *fol.* 884.

E. *reticulatus*; foliis oblongis utrinque acutis reticulatis breviter petiolatis, sepalis ovatis ovario multo brevioribus, foveis obscuris vix diaphanis.

Folia *obovata, acuta, abruptè acuminata, in petiolo brevi crasso, acuminata, reticulata, non marginata.* Bracteæ *magis lineares.* Calycis *dentes parvæ, acutæ, minutè ciliatæ, ovario multoties breviores.* Corollæ *majores; foveæ nectariferæ obscuræ, vix diaphanæ, et color minus splendens. Cetera* E. quinqueflori.

In the last article we have made some remarks upon the generic character of this genus. We will now offer a few observations connected with its specific divisions.

All the species of the genus published in Europe have been referred by us to E. *quinqueflorus*, but with some doubt. Whether the E. *quinqueflorus* of Loureiro was the same as either of the species now published, there is unfortunately in this country no means of discovering. For ourselves, we are unable to reconcile the statement of that author, that his plant formed a moderately sized tree, with the fact, that both our species are small bushes. But if we have a doubt as to the identity of either of our plants with the imperfectly described plant of the Portuguese Botanist, we do not experience much less uncertainty as to which of the species now described was intended by the Editor of the Botanical Magazine and Mr. Salisbury. From the attention of the draughtsmen of neither of these gentlemen having been directed to the niceties of difference between two unsuspected neighbouring species, it has arisen that the figures of both are referable to either of those now distinguished, and that the absence of internal evidence is badly supplied by evidence of another nature.

In the figure in the possession of the Horticultural Society, the leaves resemble those of our E. *quinqueflorus*, but the calyx is that of E. *reticulatus*. In the figure published in the Botanical Magazine, which was taken from the very same plant as that of the Horticultural Society, the calyx is of E. *reticulatus*, as are in some measure the leaves; but the nectarial foveæ are altogether those of E. *quinqueflorus*, and the length of the stamens that of neither species. In this uncertainty we have referred both the E. *quinqueflorus* of the Botanical Magazine and the *Melidora pellucida* of Salisbury to the most common plant in our gardens, which is certainly our E. *quinqueflorus;* trusting to the probability, that the plant of most frequent importation would be that from which the figures above referred to were taken.

Both these plants are natives of China. For the specimens from which our drawings were made, we are indebted to William Wells, Esq., of Redleaf. They are half-hardy plants, which thrive pretty well in a common conservatory, but which will not succeed in the open air during winter. They are to be propagated, but with difficulty, from cuttings. They flower in January and February.

J. L.

CURCUMA longa.

Common Turmerick.

MONANDRIA *MONOGYNIA.*

Nat. ord. Scitamineæ.

CURCUMA L.—*Corolla* limbo utroque 3-partito. *Anthera* duplex, basi bicalcarata. *Capsula* bilocularis seminibus numerosis arillatis. *Embryo* simplex, albumine et vitello. *Fl. ind.* 1. 20.

Sect. II. Spica centrali.

C. *longa*; bulbis parvis cum tuberibus numerosis longis palmatis intus aurantiacis, foliis longè petiolatis lato-lanceolatis unicoloribus. *Fl. ind.* 1. 32.

Mangilla-Kua. *Rheede Hort. Mal.* 11. *p.* 21. *t.* 11.

Curcuma domestica major. *Rumph. amboin.* 5. *p.* 162. *t.* 67.

Amomum Curcuma. *Jacq. vind.* 3. *t.* 4.

Curcuma longa. *Retz. obs.* 3. 72. *Willd. sp. pl.* 1. 14. *Rom. et Schultes,* 1. 31.

After the elaborate descriptions of this plant which have been given by König in Retzius's Observationes, and by Jacquin in the Hortus Vindobonensis, it appears unnecessary to describe it anew.

Like the rest of its genus, it produces its flowers enveloped in an imbricated spike of bracteæ, which in this species are pale yellow, with a slight tinge of pink at the top where the bracteæ are destitute of flowers.

Its native country is not known with precision, but it is cultivated to a great extent in every part of Bengal, where it produces large crops of its deep yellow roots, which are known in England under the name of Turmerick.

Our drawing was made at Mr. Colvill's Nursery during last summer. It is an herbaceous plant, and requires the heat of the stove.

The following is stated in the Flora Indica to be the mode of cultivating this plant in Bengal:

" The ground must be rich, friable, and so high as not

to be overflowed during the rainy season, such as the Bengalees about Calcutta call Danga. It is often planted on land where sugar-cane grew the preceding year, and is deemed a meliorating crop. The soil must be well ploughed and cleared of weeds, &c. It is then raised, in April and May, according as the rains begin to fall, into ridges, 9 or 10 inches high, and 18 or 20 broad, with intervening trenches 9 or 10 inches broad. The cuttings or sets, viz. small portions of the fresh root, are planted on the tops of the ridges, at about 18 inches or 2 feet asunder. One acre requires about 900 such sets, and yields in December and January about 2000lb. weight of the fresh root."

J. L.

CAMELLIA japonica: *anemoneflora variegata.*

Chandler's Warratah Camellia.

Nat. ord. CAMELLIEÆ. *Decand. th. elem. ed.* 1. 214.
THEACEÆ. Mirb. bull. phil. 3. 382.
CAMELLIA L. Calyx imbricatus, nempe bracteis sepalisve nonnullis accessoriis cinctus. *Stamina* basi polyadelpha v. monadelpha. *Antheræ* ellipsoideæ. *Capsula* valvis medio septiferis axim triquetrum librum post dehiscentiam relinquentibus. *Dec. prodr.* 1. 529.

Camellia japonica. *Vide suprà vol.* 1. *fol.* 22.
v. Staminibus petaloideis imbricatis petalis involucratis, flore sanguineo, albo, roseoque maculato.

This fine variety of Camellia japonica has been lately raised from seeds produced at their Nursery, Vauxhall, by Messrs. Chandler and Buckingham. It was obtained from the Warratah Camellia crossed by the striped-flowered variety. It is remarkable for the vivid colour of its crimson flowers, mottled with white and rose; and is a subvariety of the Warratah Camellia.

We subjoin the character applied by M. De Candolle, to the Natural order Camellieæ, which he remarks approximates to Ternströmiaceæ in the structure of its flower, but differs from them in having seeds without albumen. We may add, that one of M. De Candolle's species of Camellieæ (C. axillaris), taken up from an early number of this work, is in fact referable to M. De Candolle's 5th division of Ternströmiaceæ, and does not belong to the genus Camellia.

" *Sepals* 5-7, in æstivation imbricated, the inner often larger than the others, somewhat concave, coriaceous, deciduous. *Petals* 5-6-9, equal in number to the sepals, alternate with them, and often cohering at the base. *Stamens* several. *Filaments* filiform, at the very base monadelphous, or polyadelphous. *Anthers* ellipsoid or round, versatile. *Ovary* 1, ovate roundish. *Styles* 3-6 filiform, more or less united. *Capsule* 3-celled, 3-valved splitting, by the abor-

tion of many of the ovules 3-seeded: the valves (by an accidental alteration of dehiscence) either bearing the dissepiments in their middle, or forming them by the inflection of their edges. *Seeds* fixed to the inner edge of the dissepiments; large, thick, and few. *Albumen* none. *Embryo* with large, thick cotyledons replete with oil, plano-convex, and, as it were, jointed at the base; *radicle* very short, obtuse, opposite the hilum, drawn inwards, with a hardly conspicuous ascending plumule." *Dec. prodr.* 1. 529.

J. L.

ROSA grandiflora.

Large-flowered Scotch Rose.

ICOSANDRIA *POLYGYNIA.*

Nat. ord. ROSACEÆ.
ROSA. *Suprà vol.* 1. *fol.* 46.

DIV. 5. Pimpinellifoliæ. *Setigeræ armis confertis subconformibus, v. inermes; ebracteatæ (rarissimè bracteatæ). Foliola ovata v. oblonga. Sepala conniventia, persistentia. Discus subnullus.*

R. *grandiflora,* setis ramorum nullis, aculeis subæqualibus distantibus, foliolis planis impubibus simpliciter serratis. *Lindl. Mon. Ros.* 53.

The native country of this fine Rose is uncertain. It is said to be an inhabitant of Siberia; but the R. *pimpinellifolia* of Bieberstein, which was supposed to be the same as this species, being referred in the Supplement of the Flora Taurico-caucasica to R. *altaica* of Willdenow, there is now no better authority for considering it a native of Asia than the vague report of gardeners.

It is nearly related to Rosa *spinosissima,* these two species differing, as we have stated elsewhere, nearly in the same manner as R. *involuta* and *Sabini.* The chief points of difference between this and R. *spinosissima* consist in its very large flowers, and in the want of setæ among the prickles of the branchlets. It is, moreover, a much more robust plant than any of the varieties of R. *spinosissima,* and has larger fruit.

Our drawing was made in the Garden of the Horticultural Society last Spring.

J. L.

IPOMÆA latiflora.

Broad-flowered Ipomæa.

PENTANDRIA *MONOGYNIA.*

Nat. ord. Convolvulaceæ.
IPOMÆA. *Suprà vol.* 1. *fol.* 9.

I. *latiflora;* foliis cordatis glabris, pedunculis subtrifloris, corolla hypocrateriformi maxima. *Römer et Schultes, sp. pl.* 4. 240.
Convolvulus flore albo maximo s. Quamoclit flore maximo albo. *Plum. MSS.* 2. *t.* 52.
Convolvulus amplissimo folio cordiformi, flore albo maximo. *Plum. Cat. p.* 1. *Tourn. cor. p.* 83.
C. grandiflorus. *Jacq. vind.* 3. *t.* 69.
Ipomæa grandiflora. *Bot. repos. t.* 403.
Convolv. latiflorus. *Encycl. Method.* 3. *p.* 561.

Caules *longissimi, maximè volubiles.* Folia *acuminata, magna, tenuia, lætè viridia, in petiolis longis canaliculatis.* Pedunculi *solitarii petiolis crassiores, teretes, ad divisiones angulati.* Calyces *parvi, è foliolis 5, tribus exterioribus longioribus acutis, interioribus obtusis.* Corollæ *niveæ, tubo longo, gracili, virente, limbo amplissimo, 5-poll. in diametro, stellâ pallidè virente.* Capsula *membranacea, turbinata, ferè magnitudine nucis,* 3-4-*sperma.* Flores *matutino tempore aperiuntur, meridie evanidi.* R. and S. l. c.

This plant seems to have been frequently confounded with the Convolvulus *grandiflorus* of Linnæus's Supplement, from which it has been well distinguished in the Encyclopédie Méthodique under the name here adopted. From that species it is distinguished by its leaves not being obtuse, by its annual stem, and by the leafstalks and stem not being downy. The Convolvulus *grandiflorus* is a native of the East Indies; that now before us of St. Domingo and Martinique.

We have no memorandum of the place where our drawing was made, or of the individual to whom the publishers are obliged for it; neither have we had any opportunity of seeing specimens of it.

It is stated to be a fine annual plant which cannot be cultivated without the heat of a stove.

In the Encyclopédie the *stems* are said to be very long, and much turning. *Leaves* acuminate, large, thin, bright green, on long channelled footstalks. *Peduncles* solitary, thicker than petioles, rounded, angular at the divisions. *Calyx* small, of 5 leaves, the 3 outer longer acute, the 2 inner obtuse. *Corolla* snow-white, with a long, slender, green tube, and a very large limb, 5 inches in diameter, with a green eye. *Capsule* membranous, turbinate, about the size of a nut, 3-4 seeded. *Flowers* opening in the morning, fading at noon.

J. L.

NOTE—At fol. 872, we stated it to be our opinion that the genus Brexia, of which a new species was there published, would be found referable to Myrsineæ; in which we were influenced by a belief that the stamens were opposite the petals, and the ovarium unilocular. The specimens which we had examined were in a very imperfect state, and appear to have misled us; for Mr. Brown, who has had better opportunities of studying the genus, has kindly pointed out to us that the stamens are in fact alternate with the petals, and the ovarium not unilocular, in consequence of which the genus cannot be referred to Myrsineæ, but has yet to find its station.

RHODODENDRON arboreum.

Tree Rhododendron.

DECANDRIA *MONOGYNIA.*

Nat. ord. ERICEÆ.
RHODODENDRON. *V. suprà vol.* 1. *fol.* 37.

R. *arboreum;* foliis glabris lanceolatis subtùs tomentosis, capitulis terminalibus, capsulâ valvis 10, caule arboreo. *Smith Exotic Botany, t.* 9.
R. puniceum, R. *Hort. Beng.* 33.

Folia *ovali-lanceolata, petiolata, acuta,* 4-6 *uncias longa,* 1½ *lata, suprà glabra, opaca, venis immersis, infrà argenteo lepidota venis glabris, prominentibus, nudis.* Flores *terminales, in corymbo brevi capitati; e gemmâ provenientes extus tectâ squamis oblongis, sensim intùs acutioribus, concavis, serie multiplici imbricatis, brunneis, ciliatis, interioribus sericeis.* Bracteæ, *cuique flori una, spatulato-lanceolatæ, arcuatæ, cymbiformes, albæ, sericeæ, florum longitudine, et cum floribus decidentes.* Pedicelli *breves, corrugati, furfuroso-pilosi.* Calyx *brevis, planiusculus, quinque-dentatus, pubescens.* Corolla *atrococcinea, carnosa, campanulata, basi 5-gibbosa, 5-loba,* 1¼ *unciam longa, lobis rotundatis, undulatis, emarginatis, inferioribus majoribus, fauce maculis nigris aspersâ.* Stamina 10, *hypogyna, corollæ longitudine.* Filamenta *alba, carnosa, filiformia.* Antheræ *brunneæ, oblongæ, verosimiliter inversæ, et igitur apice poris duobus dehiscentes, ecalcaratæ.* Pollen *pallidè flavum, globosum, ternatim conglomeratum.* Ovarium *conicum, obtusum, lanatum, filamentis appressis 10-striatum,* 10-*loculare, placentis totidem polyspermis in axi carnosâ conferruminatis.* Stylus *albus, filiformis, longitudine staminum.* Stigma *capitatum, radiis* 10.

"This most magnificent species of Rhododendron was first noticed by Captain Hardwicke, on a tour to Sireenagur, in 1796, growing in the mountainous tract called the Sewalic chain, which separates the plains of Hindostan, between 75° and 85° east longitude, from the Himmaleh Mountains. It is generally found in elevated situations, in forests of oak; the soil a rich black vegetable earth on a stony bed. The natives use the wood for making the stocks of matchlocks, or common musquets of Hindostan. The stem is columnar, 20 feet or more in height, 16 to 24 inches in diameter." Thus far Sir James Smith, by whom this superb plant was first published in the Exotic Botany. The figure in that valuable work, taken in India from a wild specimen of the plant, agrees well with the subject of this page, in all respects, except in not representing any of the dark spots of the throat of the corolla, which are so conspicuous in the plant of our gardens.

It is now several years since the present plant was raised in this country from seed, but not till within a few weeks had it produced its blossoms, in any collection in Europe. In the beginning of April we were kindly supplied with the specimen from which our figure has been taken by Mrs. Alexander Baring, under the judicious management of whose Gardener at the Grange, Mr. Peter M'Arthur, the plant had expanded its flowers in all their beauty.

It may easily be imagined, that this will be, at some future time, the most conspicuous ornament of our shrubberies. In its own country, it thrives only in very cold districts, and with us, such young plants as have been established in the open air seem quite regardless of the severity of European winters.

Two very distinct varieties are to be met with in collections; the one with leaves silvery beneath, which is the kind now published; and the other with the under-surface of the leaves covered with a brown tomentum. These differences should be borne in mind by collectors, because while the one has now been proved to bear flowers of the kind here represented, it is by no means certain that the other is equally beautiful. All the native specimens which we have examined agree with the variety before us; of the ferruginous kind we have seen no wild specimen. It is not improbable, that it is indebted for its altered colour to one of two species not yet introduced, with pale flowers, and leaves ferruginous beneath.

Leaves oval-lanceolate, stalked, acute, 4-6 inches long, 1½ inch broad, above smooth and dull, with sunken veins, beneath silvery, with smooth prominent naked veins. *Flowers* terminal clustered in a short raceme, proceeding from a bud covered outside with oblong, imbricated brown scales, which gradually become more acute, membranous and silky as they approach the flowers, among which they are finally mixed, as in Enkianthus, in the form of bracts, which are placed singly under each flower, and are spatulate-lanceolate, bowed, cymbiform, white, silky, the length of flowers, and falling off with the flowers. *Pedicels* short, wrinkled, scurfy. *Calyx* short, flattish, 5-toothed, pubescent. *Corolla* dark scarlet, fleshy, campanulate, at the base with 5 prominences, 5-lobed, 1¼ inch long, with rounded, wavy, emarginate lobes, of which the lowest are largest; the throat covered with dark purple spots. *Stamens* 10, hypogynous, the length of corolla; filaments white, fleshy, filiform. *Anthers* brown, oblong, apparently inverted, and therefore opening by two pores at the end, not calcarate. *Pollen* pale yellow, globose, clustered in threes. J. L.

591.

BURCHELLIA parviflora.

Small-flowered Burchellia.

PENTANDRIA *MONOGYNIA.*

Nat. ord. RUBIACEÆ.
BURCHELLIA. *Suprà vol.* 6. *fol.* 446.

B. *parviflora;* foliis ovali-lanceolatis glabriusculis basi subcordatis, antheris medio tubo insertis.

Rami *subquadrati, tomentosi, ad articulos intrà stipulas annulo villoso circumdati.* Folia *petiolata, ovali-lanceolata, basi subcordata,* 4 *uncias longa,* 1-1¼ *lata, suprà glabriuscula, nervo medio piloso, infrà cum petiolo pilis paucis rigidis vestita.* Flores *terminales, in capitulo sessiles,* 6-8 *in involucro brevi, pubescente, dentato, erecto, calycibus breviore.* Calyx *pubescens, corolla multò brevior.* Corolla *infundibularis, erecta, extùs pubescens, semuncialis, coccinea.* Stamina *medio tubo inserta.*

The genus Burchellia was constituted by Mr. Brown, in a former volume of this work, upon the *Lonicera bubalina* of Linnæus. At that time one species only had been observed. The present was communicated to us by Messrs. Whitley and Co. of the Fulham Nursery, in March last. It may be distinguished from the original species by its small flowers and differently shaped leaves, which are not hispid, but nearly destitute of pubescence, except upon their nerves. It is a native of the Cape of Good Hope, and is to be preserved in a good greenhouse.

A low bush in this country, with somewhat square downy branches, which at the joints inside the stipules are surrounded by a rim of dense hairs. The *leaves* are stalked, oval-lanceolate, somewhat cordate at base, about 4 inches long, and from an inch to an inch and quarter broad, nearly smooth above, with the middle nerve pilose, beneath covered like the petiole with a few stiff hairs. *Flowers* terminal, sessile in a head, from 6 to 8 in number,

seated in a pubescent, toothed, erect involucre, which is shorter than the calyxes: *Calyx* pubescent, much shorter than corolla. *Corolla* funnel-shaped, erect, pubescent outside, half an inch long, of a bright scarlet colour. *Stamens* inserted in the middle of the tube.

J. L.

592.

Ridgway 169 Piccadilly June.1.1825.

SEMPERVIVUM caliciforme.

Chalice-formed Sempervivum.

DODECANDRIA *DODECAGYNIA.*

Nat. ord. SEMPERVIVEÆ.
SEMPERVIVUM L. V. suprà vol. 2. fol. 99.

S. *caliciforme;* foliis lævigatis nudis glaucis densissimè imbricatis capitulo caliciformi incurvatim elegantissimè collectis. *Haworth suppl.* 69.

This rare species of Sempervivum was introduced to the gardens of this country by the unfortunate Christian Smith, who collected it, with many other curious plants, in the island of Madeira, while touching there on his way to that unhappy climate whence he was destined never to return.

We do not find the species described in any other work than that of Mr. Haworth, which we have quoted. The specimen with which we were furnished was so imperfect, that we have little to remark beyond what is expressed in our figure, which conveys a just idea of the plant. The leaves are glaucous, fleshy, very blunt, with a thin curled whitish edge. Before flowering they are so placed as to represent a small chalice, whence the name has been taken. The flowering stem appears to be glabrous, but the pedicels and the leaves of the calyx are sparingly covered with fine transparent glandular hairs. The flowers are bright yellow, with filiform petals, and a single row of stamens of the same colour as the petals, and about half their length.

Our drawing was taken from a plant in the Nursery of Mr. W. Ross, of Stoke Newington. It is half-hardy, requiring only a dry air, and protection from frost.

J. L.

593.

Pub. by J. Ridgway 169 Piccadilly June 1. 1825.

S. Watts. sc.

TETRANTHERA laurifolia.

Laurel-leaved Tetranthera.

ENNEANDRIA *MONOGYNIA.*

Nat. ord. LAURINÆ. *Br. prodr.*

TETRANTHERA Jacq.—*Flores* dioici. *Involucrum* umbellæ, 4-5 phyllum, deciduum. *Perianthium* limbo 4-6 partito v. nullo.—*Masc. Stamina* 6-15. *Antheræ* 4-loculares. *Glandulæ* ad basin filamentorum interiorum. *Rudimentum* pistilli.——*Fem. Glandulæ* staminaque sterilia. *Stigma* dilatatum, sublobatum. *Bacca* nuda. *Br. prodr.* 403.

T. *laurifolia*; foliis obovatis oblongis petiolatis suprà glabris, petiolo piloso, involucris tetraphyllis tomentosis.

Tetranthera laurifolia. *Jacq. Schönb.* 1. *t.* 113. *Smith in Rees in loco.*

Tomex tetranthera. *Willd. sp. pl.* 2.839.

Litsea tetranthera. *Pers. syn.* 2.4.

Obs. *Tomex sebifera* Willd. et *Litsea chinensis* Lamarckii *a T. laurifoliâ differunt, ut aiunt, floribus asepalis. Herbario nostro tres adsunt ramuli, quorum unus ex horto Calcuttense sub nomine Litseæ chinensis missus est, alter e Mauritio, tertius Guyanâ; horum prior 3-5 sepalus, alteri planè asepali; nullo alio signo distinguendi. Anne igitur hæ species eædem? Characteres autorum nulla signa ostendunt quibus separandæ sunt.*

That the subject of this article is the Tetranthera laurifolia of Jacquin, there can, we think, be no reason to doubt. Whether it is not also the Tomex sebifera of Willdenow, and the Litsea chinensis of Lamarck, may also be worthy of consideration. In the specific characters which have been assigned to the last-mentioned species by authors, we confess we can detect no differences beyond that of their being asepalous, by which they can be divided from T. laurifolia; between themselves we perceive no distinction whatever. We are unable to tell what value may be attached to the absence or presence of sepals in these plants, but the importance of such a character appears at most to be doubtful. The divisions of the perianthium, or the petals as they have been incorrectly called, are deciduous, and easily overlooked in dried, and, perhaps, imperfect specimens. We have in our own possession three branches of what appear to be of the same species, of which one was

sent from the Botanic Garden, Calcutta, under the name of *Litsea chinensis;* another was collected in the Isle of France, where Lamarck states his L. chinensis to be cultivated for hedges; and the third was sent from Guyana to Professor Hooker by Mr. Parker. Of these the specimen from the Botanic Garden, Calcutta, has distinctly from 3 to 5 deciduous sepals, and cannot be distinguished from the plant now figured; the two others differ from it in no other material respect than in being, as far as we have observed, asepalous. Considering these facts, and that the three supposed species of authors have not been described as different by any botanist who had actually more than one of them before him, we cannot but entertain a suspicion of the three being repetitions of one species. We have not, however, ventured to combine them; our conjectures not being supported by the examination of authentic specimens.

A tall shrub, native of China, where the plant from which our drawing was made was obtained for the Horticultural Society, and brought home by Mr. John Potts in 1822. It flowers in August and September, and requires the heat of a bark-bed. At the Isle of France it is cultivated under the name of Cérisier de la Chine, or Chinese Cherry-tree, the berries when ripe resembling that fruit.

Our drawing was made in the Chiswick Garden last summer.

J. L.

GASTONIA palmata.

Palmate Gastonia.

DODECANDRIA *DECAGYNIA.*

Nat. ord. ARALIACEÆ.

GASTONIA Commers.—*Calyx* margine elevato integro. *Petala* 6, basi lata, rarius 5. *Stamina* 12, rarius 10, ad petalum quodlibet binata breviora. *Styli* 10-12, minimi, basi juncti; stigmata 10-12. *Capsula* 10-12-locularis. *Juss. gen.* 217.

G. *palmata;* foliis cordatis serratis palmato-7-lobatis suprà glabris subtus ferrugineo-pubescentibus.

Gastonia palmata, R. *Hort. Beng.* 33.

Caulis *simplex, tuberculis aculeiformibus purpureo-viridibus undique adspersis.* Folia *in petiolo longo, basi vaginato, aculeato, tereti insidentia, cordata, palmata, 7-loba, lobis lanceolatis, serratis, subæqualibus, subtùs pallida, pubescentiâ tenui, ferrugineâ, stellatâ tecta.* Umbella *composita, umbellulis* 16-18 *floris, involucro partiali nullo, pedunculis glabris, punctatis, pedicellis furfure raro, deciduo, ferrugineo vestitis.* Calyx *subinteger, plicatus.* Petala *cito decidua.* Stamina 5-9, *extra discum crispum, latum, inserta.* Stylus 1, *apice multipartitus.*

Whether this plant really belongs to the genus *Gastonia,* we unfortunately have not the means of judging. The specimens with which we were furnished were incomplete; but from such an examination as we were enabled to give them, we did not discover any thing materially at variance with Jussieu's character, as the above brief description in some measure shews.

We do not find the species recorded in any work besides the Hortus Bengalensis, in which we are informed that the plant is a native of Chittagong, and that it is an upright tree or shrub. Another species, called by Roxburgh G. *saururoides,* is said to be a native of the Moluccas.

Jussieu states that the genus was named by Commerson in honour of Gaston de Foix, Duke of Orleans, brother of Louis XIII., a patron of botany, and of Morison. He was the founder of the botanic garden at Blois, and the prince who commenced the formation of the collection of

drawings of objects of natural history preserved in the Museum at Paris, and continued down to this day.

Our drawing was made in March last at Mr. Brookes's Nursery, Ball's Pond, from a plant about 5 feet in height.

Stem simple, covered all over with purple prickle-like warts. *Leaves* seated on a long prickly round stalk, sheathing at its base, cordate, palmate, 7-lobed; the lobes lanceolate, serrate, nearly equal, covered beneath with a fine stellate ferruginous pubescence. *Umbel* compound; the partial umbels with from 16 to 18 flowers each; without an involucrum; their peduncles smooth, dotted; pedicels covered with a thin deciduous ferruginous pubescence. *Calyx* nearly entire, plaited. *Petals* quickly deciduous. *Stamens* 5-9, inserted outside a broad discus. *Style* 1, with many divisions at end.

J. L.

395.

NAUCLEA Adina.

Myrtle-leaved Nauclea.

PENTANDRIA *MONOGYNIA.*

Nat. ord. Rubiaceæ.

NAUCLEA L.—*Capitulum* calyx, corolla, stamina Cephalanthi, additâ quintâ floris parte. *Stylus* et stigma idem. *Capsula* 2-cocca coccis polyspermis apice infixis axi filiformi centrali (ut in umbelliferis), a basi discedentibus et intùs suturâ dehiscentibus; semina plurima marginata minuta, ope funiculi setacei inserta marginibus suturæ. *Arbusculæ, capitula axillaria et terminalia, longè pedunculata pedunculo* 1-2-*squamuloso. Car. fructûs ex G. t.* 30.——*Congener tum* Funis uncatus *Rumph.* 5. *t.* 34 *tum* Ouroparia *Aubl. t.* 68. (Uncaria *Schreb.* Agylophora *Neck.*) *cui præterea sæpiùs spinæ aduncæ oppositæ, foliis decussativè interpositæ.* Juss. mem. mus. 13.402.

N. *Adina;* foliis lanceolatis glabris, capitulis solitariis axillaribus, pedunculis foliorum longitudine, pericarpio tenui oligospermo.

Adina globiflora. *Paradisus Londinensis, t.* 115.

Nauclea Adina. *Smith in Rees in loco.*

Cephalanthus chinensis *Hort. An quoque Lamarckii?*

Suffrutex *dumosus, 2-pedalis.* Folia *opposita, lanceolata, acuminata, glaberrima, capitulorum longitudine, petiolo brevi puberulo, stipulâ intermediâ acutè bilobâ.* Flores *pallidè lutei, in receptaculo globoso aggregati, suaveolentes.* Receptaculum *paleis filiformibus clavatis calycis longitudine tectum.* Calyx *superus, campanulatus, 5-partitus, lobis linearibus, obtusis, glabris.* Corolla *infundibularis, 5-loba, intùs glabra, lobis ovatis valvatis.* Stamina *5, filamentis brevibus, infrà sinus limbi inserta.* Antheræ *ovatæ, acutæ, biloculares, anticè longitudinaliter dehiscentes.* Stylus *filiformis, rectus, corollâ duplò longior.* Stigma *capitatum.* Ovarium *liberum, inferum, obovatum, pilosum, 2-loculare, ovulis in utroque loculo 4 pendulis.* Pericarpium *tenue, 2-loculare, loculis bivalvibus, ab axi persistente calyce coronatâ discedentibus.* Semina *in utrâque valvulâ duo, tenuia, marginata utrinque caudata.*

A small shrub, a native of China, whence living plants were brought for the Horticultural Society, in 1822, by the late Mr. Potts. Our drawing was made in the Chiswick Garden in September last. It requires the protection of a conservatory, and is easily propagated by cuttings.

It is difficult to determine the genus to which this plant should be referred. Mr. Salisbury, who first noticed it in

this country, formed it into a distinct genus, which he called Adina. Sir James Smith reduces Adina to Nauclea. To ourselves it appeared, while unacquainted with the fruit, to be in nowise distinguishable from Cephalanthus, from which we still think that nature has not divided it. Upon inspection, however, of the fruit, of which there are specimens in the possession of the Horticultural Society, it proves to be in the structure of its pericarpium more nearly related to Nauclea, from which it only differs in dehiscence, and in the small number of its seeds. We therefore coincide with the opinion of Sir James Smith, remarking only that this and another species with which we are acquainted seem to confirm the opinion entertained by some botanists of authority, that Cephalanthus, Nauclea, and Uncaria can, with Adina, be maintained only as sections of the same natural genus.

The unpublished species to which allusion has just been made is also a native of China, from whence we have specimens in fruit. It resembles N. *Adina* entirely in habit, but differs from it in the outline of its leaves, and in the great length of the peduncles. It may, therefore, be called

N. *Adinoides;* foliis obovato-lanceolatis glabris, capitulis axillaribus foliis duplo longioribus, pericarpio tenui oligospermo.

J. L.

Robertson. del.   Pub by J. Ridgway 169 Piccadilly June 1. 1825.   S. Watts. sc.

PRIMULA Pallasii.

Pallas's Oxlip.

PENTANDRIA *MONOGYNIA.*

Nat. ord. PRIMULACEÆ.
PRIMULA. *Suprà vol. 7. t. 539.*

P. *Pallasii;* foliis obovato-oblongis eroso-dentatis glabris subundulatis, umbellâ pubescente, calycibus ovatis hiantibus, corollæ limbo plano. *Lehm. Monographia Primularum, p. 38. t. 3. Romer et Schultes.* 4.137.

P. altaica. *Pall. in Herb. Willd. ex Rom. et Schultes.* 4.785. *non Lehmanni.*

Folia *cæspitosa, vere primo parva, rugosa, erecta, oblonga, acuminata, laminæ lateribus in se replicatis, petiolo latissimo; posteà explanata, multoties majora, obovato-oblonga glabra.* Scapus *erectus, teres, leviter pubescens.* Umbella 6-*flora, involucro brevi diphyllo; pedicelli erecti leviter pubescentes.* Calyx *oblongus, pentagonus, pubescens, ferè tubi longitudine: laciniis brevibus rectis, post anthesin hiantibus.* Corolla *hypocrateriformis, pedicello longior, pallidè sulphurea, tubo terete calyce vix longiore, limbo plano, laciniis discretis, obcordatis, tubi longitudine.*

This was first published from Willdenow's Herbarium, by Lehmann, in his Monographia Primularum. From the Oxlip of our meadows, it is distinguished by the proportion and form of the calyx, and by the form of the leaves. The latter during the time the plant is in flower are very small, with their sides so much folded back as to make the petiole appear as wide as the lamina; after flowering they become large, obovate, and fully expanded.

Raised in 1822 at the Garden of the Horticultural Society, from seeds presented by Professor Schrader, of Gottingen. A hardy perennial plant flowering in the beginning of February, and requiring the same treatment as the Primrose and Polyanthus. It is sensibly distinguished from the Oxlip and Cowslip, by the peculiar form of its leaves, and by the pale sulphur colour of its flowers.

Leaves tufted, in the first of the spring small, rugose, erect, oblong, acuminate, their sides much folded back, and their petiole very broad; after being fully expanded becoming much larger, obovate-oblong, and smooth. *Scape* erect, round, slightly pubescent, about 6 inches long. *Umbel* 6-flowered, with a short two-leaved involucre. *Pedicels* erect, slightly pubescent. *Calyx* oblong, 5-cornered, pubescent, almost as long as tube; with short erect segments, gaping after flowering. *Corolla* hypocrateriform, longer than stalk, pale sulphur colour, with a round tube scarcely longer than calyx; *limb* flat, with distinct obcordate segments the length of tube.

J. L.

S. Roberts del. Pub by J. Ridgway 169 Piccadilly July. 1. 1825. S. Watts sc.

MAXILLARIA Harrisoniæ.

Mrs. Harrison's Maxillaria.

GYNANDRIA *MONANDRIA.*

Nat. ord. Orchideæ: *tribus* Vandeæ. *Lindl. coll. bot. ined.*

MAXILLARIA Fl. Per.—*Perianthium* patens, resupinatum. *Labellum* cum processu unguiformi columnæ articulatum, trilobum. *Sepala* lateralia exteriora basibus cum processu columnæ connata. *Pollinia* 4, basibus connata, glandulosa.—— Herbæ *parasiticæ, bulbosæ, Americæ meridionalis.* Folia *coriacea plicata.* Racemi *radicales.*

Maxillaria *Harrisoniæ;* foliis solitariis lanceolatis plicatis, racemo bifloro, perianthio maximo cerino patente, labelli venosi disco glanduloso piloso, lobis recurvis crispis.

Dendrobium Harrisoniæ. *Hooker's Exotic Flora, tab.* 120.

From an inspection of the specimen from which Dr. Hooker's figure of his Dendrobium Harrisoniæ was taken, we have ascertained that it is the same as the plant now published, notwithstanding the difference in the colour of their flowers. The plant which Dr. Hooker examined appears to have been in a less vigorous state of health than that before us, and to have produced only one flower, instead of two, or probably a greater number.

A native of South America. The plant from which our drawing was taken was kindly communicated by William Cattley, Esq., from his Conservatory at Barnet. A robust stove parasite, flowering in September.

No group of plants has undergone greater changes, in consequence of accurate investigation, and the application of modern analytical principles of botany, than the genus Dendrobium. As it stands in Willdenow's Species Plantarum, published twenty years ago, it consists of 25 species. Of these, D. *sanguineum* has been detached, by Mr. Brown, under the name of Broughtonia; D. *graminifolium*, by the same distinguished Botanist, as Octomeria; and D. *ruscifolium*, as Pleurothallis. To the latter genus, D. *racemiflorum* has been referred by the writer of this article. D. *poly-*

tachyon is the type of Dr. Hooker's genus Polystachya; D. *utricularioides*, and probably *testiculatum*, are species of Ionopsis; D. *palmifolium* and *Barringtoniæ* belong to the genus now reformed. Of the few remaining after these deductions, the East Indian kinds are probably genuine species of Dendrobium, and most of the others require further examination.

The genus Dendrobium, as limited by Mr. Brown in the 2d edition of the Hortus Kewensis, should include no species except those with 4, parallel, distinct pollen-masses; and will consequently contain only the East Indian species, which form a numerous group, distinctly characterised by the character above mentioned, and naturally connected by habit. They are trailing or erect parasites, without bulbs, but with long, leafy, or naked round stems, producing the flowers from their axillæ, either singly, or in few-flowered fascicles. From these, the American species, agreeing with them in general structure of perianthium, are now divided. They are distinguished by having only two pollen-masses, each divided down the mdidle, and connected at the base by a common glandular process; and by being all bulbous. Besides the kind now published, D. Barringtoniæ (*Maxillaria Barringtoniæ* Nob.) and D. palmifolium (*M. palmifolia* Nob.), belong to the genus Maxillaria, which will be increased by the examination of the numerous Dendrobium-like plants of the continent of South America. It is distinguished from Polystachya by the structure of its perianthium, and by its radical inflorescence.

Nearly related to Maxillaria, in general characters, and in geographical position, is a genus of which the plant published at tab. 732 of this work, under the name of Dendrobium squalens, must be considered the type. This plant has only two pollen masses, furrowed on each side, and its flowers are in their natural position. It may be called *Xylobium*, and thus characterised:

XYLOBIUM.

Perianthium rectum, patens. *Labellum* cum processu unguiformi columnæ articulatum, trilobum, in columna incumbens. *Sepala* lateralia exteriora basibus cum processu columnæ connata. *Pollinia* 2, hinc sulcata. ——Herbæ *habitu Maxillariæ*.

Sp. 1. Xylobium squalens.

Dendrobium squalens. *Suprà t.* 732.

J. L.

593

ALLIUM fragrans β. *Nepalense*

Nepal Fragrant Allium.

HEXANDRIA *MONOGYNIA.*

Nat. ord. Asphodeleæ.
ALLIUM L. Suprà vol. 9. *fol.* 758.

A. *fragrans;* scapo terete, foliis linearibus carinatis obtusis contortis, pedunculis nudis, staminibus planis. *Vent. Cels. t.* 26. *Pers. syn.* 1.357.
β. *Nepalense;* umbellâ 6-florâ, antheris luteis.

Folia *pedalia, debilia, diffusa, linearia, obtusa, glaucescentia, apice contorta.* Scapus *glaber, erectus, teres, foliis paulo longior, foliorum colore, basi rubescens.* Umbella 6-*flora, spathâ brevi, scariosâ, diphyllâ.* Pedicelli *recti, rigidi, graciles, elongati.* Perianthium 6-*fidum, turbinatum, laciniis albis, patentibus, obtusis, æqualibus, concavis, tubo viridi.* Stamina 6, *perianthii ferè longitudine, erecta, tubi apice inserta.* Filamenta *lineari-lanceolata, alba, basi viridia.* Antheræ *polline luteo.* Ovarium *cylindraceum, 6-costatum, glaberrimum.* Stylus *staminum longitudine.* Stigma *simplex, parvum, depressum. Obs.* Flores *fragrantissimi.*

This plant was raised in 1823, in the Chiswick Garden, from seeds presented to the Horticultural Society by the Honourable Court of Directors of the East India Company. Our drawing was made from a plant which flowered in a green-house, in October last.

We are unable to distinguish it from the *Allium fragrans* of the French, which is a native of Africa, by any other differences than those which we have indicated; that is to say, by the yellow, not purple colour of the pollen, and by the small number of flowers in each head. We have compared it with numerous living plants received by the Horticultural Society from Paris, as the A. *fragrans* of Ventenat, and we find them agree in almost every other particular, especially in the glaucous colour of the leaves and stems, in the twist at the extremity of the former, and in the colour and size of their flowers.

The *Allium Sulvia* found in Nepal by Dr. Hamilton seems to be nearly related to this, but we have seen no specimen of it; and Mr. Don describes it as having a many-flowered umbel, with small flowers, which those of A. *fragrans* can scarcely be termed.

Leaves a foot long, weak, diffuse, glaucous, linear, channelled, obtuse, and twisted at the end. *Scape* smooth, erect, round, a little longer than the leaves, glaucous, with a little red at the base. *Umbel* 6-flowered, with a short, scarious, 2-leaved spatha. *Pedicels* long, slender, rigid. *Flowers* very fragrant, 6-cleft, turbinate, with white, spreading, blunt, equal, concave segments, and a green tube. *Stamens* 6, nearly the length of perianth, erect, inserted into the mouth of the tube. *Filaments* linear-lanceolate, white, green at base. *Pollen* yellow. *Ovary* cylindrical, 6-ribbed, very smooth. *Style* the length of stamens. *Stigma* small, simple, depressed.

J. L.

399

COSTUS Pisonis.

Red American Costus.

MONANDRIA *MONOGYNIA.*

Nat. ord. SCITAMINEÆ.
COSTUS. Suprà vol. 8. *fol.* 633.

C. *Pisonis;* foliis carnosis elliptico-lanceolatis acuminatis basi angustatis, spicâ ovali arctè imbricatâ, squamis inferioribus apice foliaceis, corollis roseis.
Jacuacanga v. Paco Caatinga. *Piso Brasil.* 98.
Paco Caatinga. *Marcgr. Braz.* 48. *quoad figuram, vix autem descriptionem.*

Caulis *herbaceus, 4-pedalis, strictissimus, glaberrimus.* Folia *grandia, coriacea, elliptico-lanceolata, acuminata, versùs basin angustata, superiora minora.* Capitulus *terminalis, ovi columbini magnitudine, squamis sanguineis imbricatus, pauciflorus.* Squamæ *lucidæ, ovatæ, obtusæ, margine membranaceæ, inferioribus apice foliaceis.* Flores *rosei, magni, è squamis erumpentes, citò decidui.*

Dr. William Piso, a Dutch physician, who published an account of the Natural History of Brazil in 1648, was the first author who noticed this fine species of Costus, which he has described with a figure under the name of Jacuacanga, or Paco Caatinga. His figure has not been omitted in the compilations of modern Botanists, who have universally agreed in referring it to the Alpinia spicata of the elder Jacquin. But the last-mentioned Botanist describes his plant as having a yellow flower, and points out the discrepancy between it and the Brazilian plant of Piso. Of Jacquin's plant we have fine specimens from Guiana, communicated by Professor Hooker, and we do not doubt its being distinct from C. Pisonis. The Paco Caatinga of Marcgraaf, which is illustrated by the very same wooden block as was employed by Piso for his Jacuacanga, is probably a species distinct from both those now mentioned, and remarkable for having its leaves white and downy on the under side, and very large heads of flowers. The kind to which allusion is made by Marcgraaf as resem-

bling that with downy leaves, " excepto quod folia inferiùs non sunt hirsuta, sed lævia ut supernè, et flosculi sunt rubri," is probably the plant now before us. The figure of Piso is expressive, although rude.

This and other species of the same tribe, all of which seem to be known in Brazil under the collective name of Paco Caatinga, are in high repute among the natives of the countries where they grow, as very powerful antisyphilitic medicines.

Our drawing of this species was made in the Garden of the Horticultural Society during last summer. It had been received in 1823, from Robert Hesketh, Esq., his Majesty's Consul-general at Maranhão.

An *herbaceous* tender stove plant, rising to the height of four feet, quite upright, and very smooth in every part. *Leaves* large, coriaceous, elliptic-lanceolate, acuminate, narrow towards the base; the upper smaller. Head of flowers terminal, the size of a pigeon's egg, few-flowered, imbricated with blood-red scales. The latter are shining, ovate, obtuse, with a membranous edge; the lower being leafy at end. *Flowers* large, rose-coloured, bursting out from among the scales, and quickly perishing.

J. L.

900.

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ISOPOGON longifolius.

Long-leaved Isopogon.

TETRANDRIA *MONOGYNIA.*

Nat. ord. PROTEACEÆ.

ISOPOGON R. Br.—Perianthium quadrifidum, tubo gracili diutiùs persistente. *Squamæ* nullæ, hypogynæ. *Stylus* totus deciduus. *Stigma* fusiforme, v. cylindraceum. *Nux* sessilis, ventricosa, undique comosa.—— Frutices *rigidi.* Folia *glabra, plana* v. *filiformia, divisa v. integerrima.* Capitula *terminalia, rarò axillaria.* Flores *modo densissimè imbricati, strobilo globoso; modo fastigiati, receptaculo communi planiusculo subinvolucrato, paleis deciduis, congestis.* Br. prodr. 365.

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1. Strobilus globosus, squamis densissimè imbricatis tardiùs deciduis. *Br. l. c.*

I. *longifolius;* foliis lineari-lingulatis: superioribus integerrimis: inferioribus passim trifidis, perianthiis sericeis, stigmate glabro. *R. Brown Linn. trans.* 10. *p.* 73. *prodr.* 366. *Röm. et Schultes sp. pl.* 3.341.

Rami *teretes, glabri.* Folia *glaberrima, lineari-lingulata, in petiolo angustissimè attenuata, apice rotundata, torta, mucronata, nunc obsoletè triloba.* Flores *in capitulo sessili, globoso, terminali, foliis quasi involucrato.* Receptaculum *pilis longis albis villosum.* Squamæ *cuneatæ, apiculatæ, extùs lanâ albâ sericeâ obductæ, intùs glaberrimæ.* Perianthium *pube luteâ sericeum, tubo tenui glabriore, limbo 4-partito sæpiùs sub-bilabiato, laciniis reflexis in apice concavo antheras lineares gerentibus.* Ovarium *villis densissimis, longissimis, argenteis involutum, qui etiam ad styli basin accrescunt.* Stigma *fusiforme, glaberrimum, staminum longitudine.*

Our drawing of this species of Isopogon was made at Mr. Colvill's Nursery. It is a native of the Southern parts of New Holland.

A hardy green-house plant, with smooth, round branches. *Leaves* quite smooth, linear-lingulate, very much narrowed towards the base, at the end rounded, twisted, mucronate, occasionally with three obsolete lobes. *Flowers* yellow, in a sessile, globose, terminal head, and, as it were, surrounded by an involucre of leaves. *Receptacle* with long

white hairs. *Scales* wedge-shaped, apiculate, on the outside covered with long white silky wool, in the inside quite smooth. *Perianthium* silky, with yellow pubescence, tube thin, and nearly smooth, limb 4-parted, frequently somewhat 2-lipped, with reflexed segments bearing the linear anthers in their concave ends. *Ovary* wrapped in very dense, very long, silvery-white hairs, which also grow upon the base of the style. *Stigma* fusiform, quite smooth, the length of stamens.

J. L.

961

SENECIO venustus.

Handsome Senecio.

SYNGENESIA *POLYGAMIA SUPERFLUA.*

Nat. ord. Compositæ.
SENECIO. *Vide suprà vol.* 1, *fol.* 41.

S. *venustus;* corollis radiantibus, caule, calyce, foliisque glabris, foliis pinnatifidis, laciniis linearibus acutis dentatis. *Ait. Kew. ed.* 1. 3.192. *Willd. sp. pl.* 3.1990. *Pers. syn.* 2.434. *Lindl. in Hort. trans.* 6.99.

A very handsome herbaceous plant, in favourable situations living for three or four years, but, if treated as a hardy plant, perishing after the second year. It is a native of the Cape of Good Hope, and usually increased by seed.

Nearly related to the common *Senecio elegans,* or *Purple Ragwort* of the gardens, from which it is distinguished by the smoothness of all its parts, and by its leaves being more finely divided and more acute. The underside of the leaves, upon the mid-rib, is frequently beset with soft bristles.

No figure of this plant has been previously published. Our drawing was made in the Garden of the Horticultural Society, from a plant raised from seed presented to the Society from the Royal Botanic Garden at Berlin, by Mr. Otto.

J. L.

902.

ZEPHYRANTHES grandiflora.

Large-flowered Zephyranthes.

HEXANDRIA *MONOGYNIA.*

Nat. ord. AMARYLLIDEÆ.
ZEPHYRANTHES. *V. suprà fol.* 821.

Z. *grandiflora;* foliis linearibus erectis obtusis scapo multo brevioribus, spathâ monophyllâ, pedunculo breviore, perianthio infundibulari pedunculo duplo longiore.

Amaryllis minuta. *Humb. et Bonpl. nov. gen. et sp.* 1.278. *Kunth. synops.* 1.285.

Bulbus *ovi columbini magnitudine, nigro-brunneus.* Folia 3, 4-6-*uncialia, erecta, linearia, utrinque glaberrima, apice rotundata, subacuta, læte viridia, versus basin paulo rubro suffusa.* Scapus *cum flore pedalis, teres, fistulosus, glaber, læte viridis, basi coloratus, uniflorus.* Flos *in pedunculo suberecto, sesquiunciali insidens.* Spatha *pedunculo brevior, monophylla, ½-fissa, parte libera, integerrima, lateribus involutis, patente.* Perianthium *infundibulare, 3 uncias longum, læte rubicundum, tubo inferiore pallidè virente; laciniæ ovales, subæquales, usque ad medium divisæ, exterioribus interiores imbricantibus, marginibus fere ad basin usque liberis.* Stamina *inclusa, perianthio multo breviora, fauce tubi inserta, non declinata.* Antheræ *lineares, versatiles.* Ovarium *breve, trigonum, triloculare, multiovulatum; ovula compressa, disticha.* Stylus *filiformis, declinatus, sursùm clavatus, antheris longior, perianthio brevior.* Stigma *trilobum, crassum, lobis recurvis.*

Capsula *brevissimè pedicellata, vestigiis spathæ ruptæ vestita, trilocularis, semi-trivalvis, valvulæ medio septiferæ, latæ, rotundatæ, apiculatæ, medio extus, è regione dissepimenti, canaliculatæ.* Semina *numerosa, distichè imbricata, ope funiculi brevissimi, tenuissimi placentæ affixa, compressa, semiovata; testa purpureo-nigra, lucida, membranacea, ad apicem et dorsum laxa; chalaza membrana apicis interior, pallida, subrugosa.* Embryo *obliquus, in axi albuminis carnosi, copiosi cylindricus, 2 tertias axis occupans, paulo eccentricus; radicula apice imo, hilo proximo, albumine incluso; plumula minima, è latere embryonis versùs basin erumpens, et apice suo semper denudato!! nec embryonis substantiâ supertecto.*

A beautiful new species of Zephyranthes, native of Mexico, where it does not seem to be uncommon, especially in the cool high country about Real del Monte and Cerro Ventoso. Introduced this spring for the first time. Our

drawing was made in May, from a plant in the possession of Sir Abraham Hume. We have seen others in the collection of the Horticultural Society, to whom they had been presented by Don Mariano La Gasca.

When our drawing of this species was made, we had not seen the flower in its most perfect state. Since the figure was in the hands of the engraver, we have had an opportunity of examining the plant under the influence of bright sunshine, and we find that the flowers then expand quite as much as in *Zephyranthes rosea.*

Bulb the size of a pigeon's egg, blackish brown. *Leaves* 3, 4, or 6 inches long, erect, linear, quite smooth on each side, rounded, but somewhat acute at the end, bright green, a little tinged with red towards the base. *Scape,* together with the flower, a foot high, round, hollow, smooth, bright green, coloured at base, 1-flowered. *Flower* seated on a nearly erect peduncle an inch and half long. *Spatha* shorter than the peduncle, 1-leaved, half-split, the part above the opening entire, spreading with involute edges. *Perianth* funnel-shaped, 3 inches long, bright pink, the limb in the sunshine opening nearly flat; lower part of the tube pale green; segments oval, nearly equal, divided almost as far as the middle of the flower; the outer lapping over the inner, their edges being distinct almost as far as the base. *Stamens* included, much shorter than perianth, inserted into the throat of the tube, not declinate, but spreading equally. *Anthers* linear, versatile. *Ovary* short, three-cornered, three-celled, with many ovules packed in two rows one above the other. *Style* filiform, declinate, clavate upwards, longer than the anthers, shorter than the perianth. *Stigma* three-lobed, thick, with recurved lobes.

J. L.

Pub by J. Ridgway [illegible] Piccadilly [illegible] 1825. [illegible]

HELICTERES verbascifolia.

Mullein-leaved Button-Wood.

MONADELPHIA *DECANDRIA.*

Nat. ord. Bombaceæ. *Kunth. diss. malv.*

HELICTERES L.—*Calyx* tubulosus, sub-5-fidus. *Petala* 5, ligulato-unguiculata, supernè subdentata. *Stamina* 5-10-15, longè monadelpha, urceolo apici multifido pilis nonnullis sterilibus. *Ovarium* longè stipitatum. *Styli* 5, basi concreti. *Carpella* 5, 1-locularia, polysperma, intùs dehiscentia, sæpè in spiram regulariter contorta, interdum recta. *Semina* exalbuminosa, cotyledonibus spiraliter convolutis. *Dec. prodr.* 1.475.

H. *verbascifolia;* foliis cordatis acuminatis serratis tomentosis virentibus, pedunculis axillaribus paucifloris, carpophoro longissimo. *Dec. l. c.* 476.
H. verbascifolia. *Lodd. Bot. Cab.* 504. *Link. enum. ber.* 2.200.

Folia *cordata, acuminata, subsimpliciter crenato-serrata, utrinque pilis, nunc simplicibus, nunc stellatis, sericea; petioli hispidi; stipulæ subulatæ, petiolis breviores.* Flores *axillares, corymbosi, pedunculati, foliis breviores.* Calyx *densè pubescens.* Petala *reflexa, calyce duplo breviora.* Tubus stamineus *longissimus, filiformis, glaber.*

A species of *Helicteres* introduced a few years since from the Brazils. It is a handsome shrub, remarkable for its brownish-red flowers, and the rosy, long, filiform tube of the stamens. From H. *jamaicensis* it is distinguished by the outline of its leaves, which are never angular or rhomboid, as they often are in that species, by the greater breadth of its petals, and especially by the tube of its stamens, which is very long and quite smooth, never downy as in H. *jamaicensis.*

Our drawing was taken at Mr. Colvill's Nursery, where the plant is kept in a cool stove.

Leaves cordate, acuminate, somewhat simply crenate-serrate, on each side covered with hairs, which are generally simple, but occasionally stellate; *petioles* hispid; *stipules* subulate, shorter than the petioles. *Flowers* axillary, corymbose, stalked, shorter than the leaves. *Calyx* densely pubescent. *Petals* reflexed, twice as short as calyx. *Tube of the stamens* very long, filiform, smooth.

J. L.

ERIA stellata.

Starry Eria.

GYNANDRIA *MONANDRIA.*

Nat. ord. Orchideæ. *Div.* Epidendreæ.

ERIA Lindley.—Perianthium lanatum, connivens. *Labellum* trilobum, articulatum cum processu unguiformi columnæ cujus lateribus sepala antica adnascuntur. Pollinia octo. *Collectanea Botanica* 42. *B. inedita.*

E. *stellata;* foliis lanceolatis carnosis 5-nervibus, sepalis ovato-lanceolatis acuminatis, labelli lobo medio acuminato, scapo angulato, ovario sepalisque exterioribus pube ferrugineâ lanatis. *Lindl. l. c.*

Dendrobium javanicum. *Swartz Act. Holm.* 1800 *p.* 247? *Willd. sp.* 4.137?

Herba *parasitica, repens, robusta.* Folia 1½-2 *pedalia, erecta, carnosa, glaberrima, lanceolata, tri-quinquenervia, basi squamis ovato-lanceolatis, vaginantibus, nervosis circumdata.* Scapus 2-*pedalis, teres, angulatus, undique pube lanatâ, rarâ, ferrugineâ obductus.* Flores *spicati, apice stellatim patentes, luteo-ferruginei, extùs eâdem lanâ ac scapus obducti; basi bracteâ ovatâ, concavâ, scariosâ, siccâ, deciduâ, ovario longiore, extùs villosâ suffulti.* Perianthium *connivens, sepalis apice patentibus, lineari-lanceolatis, acuminatis, æqualibus, 5-nervibus,* exterioribus *basi connatis, extùs ferrugineo lanatis,* interioribus *glaberrimis:* anticis *basibus productis cum basi elongata columnæ connatis.* Labellum *erectum, cum columna parallelum, ejusque basi articulatum, ovato-lanceolatum, basi cucullatum, 3-lobum:* disco *carnoso, tricostato:* lobis lateralibus *abbreviatis, rotundatis, pallidis, venosis:* intermedio *elongato, acuminato, sepalis breviore.* Columna *brevis, semiteres.* Gynizus *anticus, concaviusculus, apice ovatus.* Anthera *carnosa, cristata, apice dilatata truncata, omnino bilocularis, loculis discretis, bivalvibus.* Pollinia *cuique loculo 4, in paribus duobus, collateralia, basibus ad faciem mediam loculi adversis, et materie viscidâ connexis.*

This genus has been founded, in the work above cited, upon a remarkable plant from Nipal, the Dendrobium pubescens of Professor Hooker, and the subject of this article. It differs from all the other genera, having the flower of Dendrobium, in the number of its pollen masses, with the exception of Octomeria, which we have had no opportunity of examining; but which, as an American

genus, and with a peculiar habit, we cannot doubt is sufficiently distinct.

The native country of this species is said to be Java; but we are not acquainted with the time or circumstances of its introduction to this country. For our drawing we have to thank Mr. Cattley, by whom fine specimens were communicated in February last.

A stout, creeping, parasitical plant. *Leaves* $1\frac{1}{2}$ or 2 feet long, erect, fleshy, smooth, lanceolate, 3-5 nerved, surrounded at base with ovate-lanceolate, sheathing, nerved scales. *Scape* 2 feet high, round, angular, covered all over with thin rusty wool. *Flowers* spiked, at the end spreading in a stellate manner, of a yellow ferruginous colour, and covered on the outside with the same sort of wool as the scape; at the base supported by an ovate, concave, scarious, dry, deciduous bract, longer than the ovary. *Perianthium* connivent, spreading at end; sepals linear-lanceolate, acuminate, equal, 5-nerved; the *outer* connate at base, and covered with ferruginous wool outside, the *inner* quite smooth; those in front united by their dilated bases with the elongated foot of the column. *Labellum* erect, parallel with the column, and jointed with its base, ovate-lanceolate, cucullate at base, 3-lobed; *disk* fleshy, 3-ribbed; *lateral lobes* short, rounded, pale, veiny; *intermediate* long, acuminate, shorter than sepals. *Column* short, half-round. *Gynizus* in front, a little concave, ovate at end. *Anther* fleshy, crested, with a dilated, truncate end, completely 2-celled, with distinct, 2-valved cells. *Pollen masses* 4 in each cell, placed side by side, in two pairs, their bases pointing towards the front of the cell, and united by a viscid substance.

J. L.

905.

Pub by J. Ridgway 169 Piccadilly Aug. 1. 1825.

CYDONIA Chinensis.

Chinese Quince.

ICOSANDRIA *PENTAGYNIA.*

Nat. ord. ROSACEÆ. *Div.* Pomaceæ *Juss. Lindl.*

CYDONIA L.—*Calyx* 5-partitus: laciniis foliaceis. *Pomum* clausum polyspermum. *Semina* testâ mucilagineâ.——Arbor *mediocris* (Europæ et Japoniæ). Folia *integerrima, subtùs lanata.* Flores *solitarii, subsessiles.* Bracteæ *sæpius solitariæ, foliaceæ.* Calyx *lanatus.* Petala *magna, conspicua.* Styli *infrà medium lana densa cohærentes.* Lindley in Linn. Trans. 13.97.

C. *Chinensis;* foliis ovalibus argutè serratis utrinque acutis complicatis subtùs tomentosis.

C. Chinensis. *Thouin. Ann. mus.* 19.145. *Link. enum. ber.* 239.

Ramuli *pilosi, tandem glabri.* Folia *petiolata, stipulata, coriacea, ovalia, utrinque acuta, argutè serrata, semi-complicata, suprà viridia, lucida, sæpius rubro tincta, subtùs tomentosa, petiolo tomentoso suprà canaliculato, serie duplici glandularum;* stipulæ *pallidæ, glanduloso-dentatæ, petioli longitudine, 3-partitæ, lobo medio erecto ovato, lateralibus patentibus basi extùs auriculatis.* Flores *terminales, solitarii.* Ovarium *fusiforme, glabrum, sæpè suprà medium bracteatum.* Calyx *quinquepartitus, reflexus, intùs tomentosus;* laciniis *subulatis, apice glanduloso-serratis.* Petala *patentia, breviter unguiculata, oblonga, rosea.* Styli 5, *basi connati.* Stigmata *capitata.*

This curious species of Quince appears, from a paper of the late M. Thouin's, published in the nineteenth volume of the Annales du Muséum, to have been in existence in England so long ago as the end of the last century. It does not, however, appear to have obtained the notice of any scientific work in this country, or to have been much known even upon the continent. We first saw it, some years since, in the Nursery of Messrs. Whitley and Co., at Fulham; and it was in that establishment that the figure for our plate was taken, in March last.

A handsome, hardy, small tree, or large shrub, pushing forth its leaves in the earliest spring, and frequently damaged by subsequent frosts. In warm situations it would probably be nearly evergreen; exposed to the full

influence of the winter, it becomes entirely deciduous. Its foliage has a striking resemblance to the beautiful Pyrus japonica of Thunberg, and affords a strong argument in favour of cancelling the genus Chœnomeles, which was formerly proposed in the Transactions of the Linnæan Society, chiefly upon Thunberg's assertion, that its fruit, when ripe, splits into 5 valves; an erroneous statement, of which it is difficult to account for the origin. We have examined perfect and ripe fruit, produced in the neighbourhood of London, with fully formed seeds, and we have found that it differs from Cydonia only in the seeds not having a mucilaginous testa.

The fruit of this species is said to be large, but not applicable as food under any management. It is oblong, of a pale citron colour, with dry, woody flesh, and very austere juice. It has not, we believe, been ripened in this country.

Branches hairy, finally becoming smooth. *Leaves* stalked, stipulate, coriaceous, oval, acute at each end, finely serrated, half-folded together, above green, shining, generally tinged with red, beneath downy, with a downy stalk, which is channelled, and glandular in two rows above; *stipules* pale, with glandular teeth, the length of the petiole, 3-parted, with the middle lobe ovate erect, lateral spreading with auricles at the base on the outside. *Flowers* terminal, solitary. *Ovary* fusiform, smooth, often bearing a bractea above its middle. *Calyx* 5-parted, reflexed, downy inside. *Segments* subulate, with glandular serrated ends. *Petals* spreading, on short stalks, oblong, rose-coloured. *Styles* 5, connate at base. *Stigmas* capitate.

J. L.

Pub by J. Ridgway 169 ...

ORNITHOGALUM corymbosum.

Peruvian Ornithogalum.

HEXANDRIA *MONOGYNIA.*

Nat. ord. ASPHODELEÆ.
ORNITHOGALUM. *Suprà, vol.* 2. *tab.* 158.

O. *corymbosum;* scapo terete, floribus corymbosis, corollâ magnâ, germine atro. *Flora Peruviana* 3.68. *t.* 300. *Lindley in Hort. Trans.* 6.86.

Bulbus *semi-subterraneus, suprà terram vestigiis foliorum cicatricatus.* Folia $1\frac{1}{2}$ *pedalia, ligulata, canaliculata, carnosa, debilia, humifusa, glaberrima, viridia.* Scapus 2-*pedalis, teres, pennæ cygneæ crassitudine.* Racemus *corymbosus, decussatus,* 6-*florus.* Bracteæ *acuminatæ, cordatæ, membranaceæ, pedicello duplo breviores subdentatæ, eique appressæ, apicem versùs virides firmiores.* Flores *albi, odore læto Oxyacanthæ.* Sepala *primùm cyathiformia, dein patentissima, imbricata, latè ovata, subundulata, venosa, æqualia, carnosa, apice quandoque paululum divisa.* Stamina 6, *petalis duplo breviora, erecta, sepalis inserta;* filamenta *subulata;* antheræ *ovatæ, demùm verticales.* Ovarium *obovatum, nigro-viride.* Stylus *filiformis, simplex, basi viridis.*

We extract the following remarks upon this plant from the Transactions of the Horticultural Society, in whose garden at Chiswick our drawing was made.

"A bulb from Chili proved, upon flowering, to be the species described and figured under this name, (O. corymbosum,) in the Flora Peruviana. It is very like O. *Arabicum,* of which it is perhaps a mere variety; remarkable, however, for being a native of a country far distant from any in which O. Arabicum has yet been found. That it is wild in Chili, cannot be doubted, both from the bulbs in question having been sent with other wild plants indiscriminately collected, and because, although it is cultivated in the gardens of Peru, the authors of the Flora Peruviana expressly state their plant to be commonly wild in the provinces of Chancay, Cercado, and Huanuco.

The Peruvian women entwine the flowers, which are very fragrant, in their hair."

Bulb half subterraneous, above the ground marked with the scars of fallen leaves. *Leaves* $1\frac{1}{2}$ foot long, strap-shaped, channelled, fleshy, weak, spreading on the ground, very smooth, green. *Scape* 2 feet high, round, as thick as a swan's quill. *Raceme* corymbose, decussate, 6-flowered. *Bractes* acuminate, cordate, membranous, twice as short as pedicels, somewhat toothed, and pressed close to the pedicel, towards the end green, and firmer than at the sides. *Flowers* white, with the perfume of hawthorn. *Sepals* at first cup-shaped, then spreading, imbricated, broad-ovate, somewhat wavy, veiny, equal, fleshy, a little divided sometimes towards the end. *Stamens* 6, twice as short as petals, erect, inserted into the sepals; *filaments* subulate; *anthers* ovate, at length vertical. *Ovary* obovate, dark green. *Style* filiform, simple, green at base.

J. L.

BUCIDA buceras.

Jamaica Olive-bark Tree.

DECANDRIA *MONOGYNIA.*

Nat. ord. COMBRETACEÆ. *Brown.*

BUCIDA L.—*Calyx* campanulatus, 5 dentatus. *Stamina* 10, calyce longiora. *Bacca* sicca, coronata, 1-sperma.——Folia *in ramulorum dichotomia et apice conferta; flores spicati, axillares, et terminales, cornu spicam terminante spongioso, forsan inani, Rhizophoræ clavam mentiente.* Juss. gen. 75.

B. *Buceras;* spicis elongatis, foliis cuneiformibus glabris. *Vahl. ecl.* 1.50.

Mangle iulifera, foliis subrotundis versùs summitatem latissimis confertim nascentibus, cortice ad coria densanda utili. *Sloane jam.* 156. *hist.* 2. *p.* 67. *t.* 189. *f.* 3. *Raj. dendr.* 116.

Buceras ramulis flexuosis tenuioribus, foliis obovatis confertis, spicis plurimis terminalibus. *Browne jam.* 221. *t.* 23. *f.* 1.

Bucida. *Amoen. acad.* 5. *p.* 397.

B. Buceras. *Linn. sp. pl.* 556. *Lam. ill. t.* 356. *Swartz. obs.* 180. *Willd. sp. pl.* 2.630. *Pers. syn.* 1.485. *Ait. Kew. ed.* 2. 3.61.

A tree 30 feet high, about 1 in diameter. *Branches* divaricate, or flexuose, roundish, smooth, and even. *Leaves* only at the divarications and summits of the branches, crowded together, petioled, obovate or ridge-shaped, obtuse, very entire, veined, smooth, near 2 inches long. *Spikes,* or rather spike-like racemes, numerous, simple, peduncled, axillary, near the ends of the branches, about the length of the leaves. *Flowers* small, yellowish, alternate, sessile, hoary without, tomentose within. The style, or upper part of the germ, especially at the extremity of the raceme, is sometimes extended to the length of an inch or more, and curved somewhat in the form of a bull's horn, (whence the specific name).

A native of the West Indies and South America. In Jamaica it is called Black Olive; in Antigua, French Oak; and in the French Islands, Grignon. Its bark is

used for tanning leather; and its wood is excellent for chests of drawers and other kinds of cabinet-work, as it is seldom attacked by worms. *Smith.*

For our drawing we are obliged to Mr. Colvill, in whose Nursery this plant flowered in a stove. The plant is of easy cultivation.

J. L.

POGONIA pendula.

Pendulous Pogonia.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDEÆ. *Div.* Neottieæ.
POGONIA, *Suprà, vol.* 2. *fol.* 148.

P. *pendula ;* foliis ovatis squamiformibus amplexicaulibus, floribus subsolitariis cernuis, labelli lobo medio oblongo crispo, caule angulato.
Helleborine mariana, flore pallido purpureo trianthophoros. *Pluk. mant.* 100. *t.* 348. *f.* 6.
Arethusa parviflora. *Mich. am.* 2. *p.* 160.
Arethusa trianthophoros. *Swartz act. holm.* 1800. *p.* 230.
Arethusa pendula. *Willd. sp. pl.* 4.82. *Pursh. am. sept.* 2. *p.* 590.
Triphora pendula. *Nuttall am. gen.* 2. 193.

Herba *vix spithamæa, nuda, simplex.* Caulis *erectus, rubescens, angulatus, basi bulbosus;* foliis 3 *v.* 4, *parvis, ovatis, trinervibus, vaginantibus, rubro marginatis.* Flores *in axillis foliorum superiorum,* 2-3, *pedunculati, primùm cernui, demùm erecti.* Ovarium *trigonum, v. inæqualiter hexagonum, angulis marginatis.* Perianthium *ringens, sepalis albis, rubescentibus, liberis, exterioribus linearibus patentibus, interioribus oblongo-lanceolatis erectis, ad dorsum columnæ adstantibus.* Labellum *album, trilobum, cucullatum, unguiculatum, cum columnâ articulatum eâque parallelum; lobis lateralibus parvis, erectis, intermedio ovato, rotundato, crispo, patente, disco viridi granuloso.* Columna *libera, elongata, lobis lateralibus labelli brevior, semiteres, spatulata ;* gynizo *elliptico, marginibus introflexis sursùm fornicato.* Anthera *terminalis, suberecta, cristata, carnosa, bilocularis, cum gynizo parallela, valvis purpureis membranaceis.* Pollinia 2, *sulco longitudinali exarata, linearia, reniformia, è particulis angulatisconstantia.*

Roots of this curious little plant were collected in Canada, by Mr. David Douglas, for the Horticultural Society, and flowered in an open border in the Garden at Chiswick in August 1824, at which time our drawing was made. It is a very distinct species, much smaller than any other published kind, and easily recognised in any state by its elegant little pendulous white and pink flowers.

We cannot agree with Mr. Nuttall in separating this plant from the genus Pogonia, with which it, in our judgment, agrees in all essential particulars. From Arethusa it is well distinguished by the segments of the flower being all distinct, and having a nearly equal insertion.

This species seems to be distributed over nearly all North America, from Canada to Georgia. Mr. Nuttall says it is parasitic round the roots of beech trees from New York to Kentucky, and that he has also found it in Canada. Our own specimens were collected near the Alleghany River, by Mr. Goldie.

A small plant, scarcely a span high, naked, simple. *Stem* erect, tinged with red, angular, bulbous at base. *Leaves* 3 or 4, small, ovate, 3-nerved, sheathing, edged with red. *Flowers* in the axillæ of the upper leaves 2-3, stalked, at first drooping, afterwards erect. *Ovary* 3-cornered, or unequally 6-angled; the angles edged. *Perianthium* ringent, with white, pinkish, distinct divisions; outer linear spreading, inner obl. lanceolate, erect, standing on each side of the back of the columna. *Lip* white, 3-lobed, cucullate, clawed, jointed with the column, and parallel with it; lateral lobes small, erect; intermediate ovate, rounded, crisp, spreading, with a green granular disk. *Column* distinct, elongated, a little shorter than the lateral lobes of lip, $\frac{1}{2}$-round, spatulate; *gynizus* elliptical, vaulted upwards by the inflexed edges. *Anther* terminal, sub-erect, crested, fleshy, 2-celled, parallel with the gynizus; valves purple, membranous. *Pollen-masses* 2, furrowed by a longitudinal line, linear, uniform, powdery, formed of angular particles.

J. L.

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ENCELIA canescens.

Hoary Encelia.

SYNGENESIA *POLYGAMIA FRUSTRANEA.*

Nat. ord. Compositæ. Sect. *Heliantheæ Cassini.*

ENCELIA Adans.—*Involucrum* polyphyllum, imbricatum. *Receptaculum* conicum, paleaceum. *Flosculi* disci tubulosi, hermaphroditi; radii ligulati neutri. *Akenia* obovata, compressa, margine villosa, apice emarginata, et calva.——Suffrutices *ramosi.* Folia *alterna, integra, trinervia.* Flores *terminales, longè pedunculati, subcorymbosi, flavi.* Kunth. synopsis, 2.467.

E. *canescens;* foliis ovatis trinerviis mollibus alternis, floribus corymbosis.
Cav. icones. 1. *p.* 45. *t.* 61.
Coreopsis limensis. *Jacq. ic.* 3. *t.* 594.
E. canescens. *Lam. encycl.* 2.356. *Pers. syn.* 2.479. *Kunth. l. c.*
Pallasia halimifolia. *Willd. sp. pl.* 3. 2260. *Ait. Kew. ed.* 2. 5.137.

Suffrutex 2-*pedalis, caule molli, pubescente, terete, ad apicem folioso.* Folia *lata, ovata, triangularia, obtusa, trinervia, incana, in petiolo sub-decurrentia, basi cuneata, utrinque molliter velutina, longè petiolata: petiolis villosis, superiora integerrima, inferiora convexa subdentata.* Flores *terminales, gemini, longè pedunculati;* pedunculo *pilis albis, patentibus, intertextis villoso, suprà medium bracteâ solitariâ, ovatâ, subsessili, lanatâ, recurvâ, subcomplicatâ.* Involucrum *villosissimum, duplex, patens,* exterius 8-*phyllum; foliolis ovato-lanceolatis, obtusis, torquatis,* interius *foliolis totidem angustioribus, alternis, assurgentibus.* Flosculi radii *lutei, circiter* 12, *unilabiati, ligulati, lati, cuneati subplicati, invicem imbricati, omnino steriles, rudimento ovarii abortivo, obsoleto;* discoidei *parvi, hermaphroditi, infundibulares, basi teretes, glanduloso-pilosi, apicem versùs villis paucis patentibus aspersi, intùs atro-purpurei, in paleâ cymbiformi, ipsarum longitudine, villosâ, graminum glumæ simillimâ involuti.* Antheræ *atro-purpureæ basi muticæ, apice membranaceæ ovatæ.* Ovarium *compressum, tenue, obovatum, truncatum, pilosum, utrinque villis diaphanis marginatum.* Pappus *nullus.* Stylus *filiformis, glaber, apice purpureus.* Stigmata *linearia, recurva, papulosa, atro-purpurea.* Receptaculum *foveatum, paleis cymbiformibus, suprà-dictis squamatum.*

For the introduction of this pretty genus of Compositæ the public is indebted to Robert Barclay, Esq., of

Bury Hill, by whom our specimens were communicated in April last.

A hardy, green-house shrub, a native of Peru. It differs from Encelia parvifolia, in having a hairy, not downy stem; corymbose, not solitary, or nearly solitary, flowers; and leaves with a rounded, not cuneate, base.

An under-shrub, about 2 feet high, with a soft, downy, round stem, leafy at the end. *Leaves* broad, ovate, triangular, blunt, 3-nerved, hoary, running down into the petiole, cuneate at the base, softly velvety on each side, on long villous stalks; the upper entire, the lower convex somewhat toothed. *Flowers* terminal, twin, upon long stalks; *peduncles* villous, with white, spreading, interwoven hairs; above the middle bearing a solitary, ovate, subsessile, woolly, recurved bract, somewhat folded together. *Involucrum* very villous, double, spreading, the *outer* 8-leaved, with ovate-lanceolate, blunt, twisted leaves; the *inner* with as many narrower, assurgent, alternate leaves. *Florets* of the ray yellow, about 12, 1-lipped, ligulate, broad, cuneate, subplicate, imbricated, altogether sterile, with the abortive obsolete rudiment of an ovary; those of the disk small, hermaphrodite, funnel-shaped, round at the base, glandular-hairy, scattered over towards the end with a few spreading hairs, in the inside dark purple, wrapped up in a cymbiform palea of the same length as themselves and villous, very like the glume of a grass. *Anthers* dark purple, unarmed at base, at the end membranous and ovate. *Ovary* compressed, thin, obovate, truncate, hairy, edged on each side with transparent hairs. *Pappus* none. *Style* filiform, smooth, purple at end. *Stigmas* linear, recurved, papulose, dark purple. *Receptacle* foveate and scaly, with the boat-shaped paleæ above mentioned.

J. L.

ONCIDIUM papilio.

Trinidad Butterfly-Plant.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDEÆ. *Div.* Epidendreæ.
ONCIDIUM. Suprà fol. 727.

O. *papilio;* foliis solitariis ovalibus pictis patentibus, scapo articulato ancipite paucifloro, sepalis superioribus linearibus longissimis: inferioribus distinctis ovato-lanceolatis undulatis, columnâ bicorni: alis fimbriatis.

Folia *ovalia, patentia, carnosa, in bulbo compresso subangulato solitaria, suprà fasciis interruptis maculata, subtùs purpureo creberrimè punctata: maculis rotundis viridibus.* Scapus *radicalis, 3-pedalis, articulatus, nudus, articulis inferioribus teretibus, superioribus ancipitibus, 3-4-uncialibus, margine et disco rubro maculatis, basi squamâ scariosâ instructis.* Perianthium *patentissimum, diametro (in exempl. spont.) 5-unciarum ab apice sepali postici ad apicem labelli;* sepalis 3 *superioribus lineari-spatulatis, longè unguiculatis, erectis, atro-aurantiacis, nunc luteo interruptè fasciatis; inferioribus ovato-lanceolatis, falcatis, undulatis, crispis, labelli longitudine, et cum eo luteis aurantiaco nubilis.* Labellum *panduriforme, basi cordatum, apice dilatatum, emarginatum, undulatum, disco baseos glanduloso, glandulis pallidis purpureo fasciatis, et formam ranæ cubantis referentibus.* Columna *brevis, erecta, utrinque alata; alis patentibus, versùs basin quadratis, carnosis, margine laceris, versùs apicem angustioribus fimbriatis, ad ipsam apicem cornubus duobus, subulatis, porrectis, apice glandulâ capitatis, instructis.* Anthera *terminalis, opercularis, unilocularis, ovata, ad cardinem foveata.* Pollinia 2, *cereacea, oblonga, collateralia, postice biloba, basi glandulâ latâ rostello affixa.*

For this highly curious parasite, the public is indebted to his Excellency Sir Ralph Woodford, Governor of Trinidad, by whom living plants have been sent to several collections in this country. The plant from which our drawing was taken flowered in a stove at Mr. Colvill's Nursery, last March; but not in perfection, the blossoms in our only native specimen having a diameter nearly twice as great as is represented in the accompanying figure, and being much more completely expanded.

We have not succeeded in tracing this plant in any work within our reach. The Butterfly-plant of Santa Cruz, described by West, for which the "Helleborine flore papilionaceo" of Plumier is quoted by authors, is a totally different plant from this. The name has doubtless been suggested by the brilliant colours of the flower, its singular form, which may easily be likened to the wings, body, antennæ, and tongue of a butterfly, and its fluttering motion when hanging from its stalk at the extremity of the weak, elastic, jointed scape.

Leaves oval, spreading, fleshy, seated upon a compressed, somewhat angular, solitary bulb, above spotted with interrupted fasciæ, beneath dotted all over with very numerous purple points, with round, green spots among them. *Scape* from the root, 3 feet long, jointed, naked, the lower joints round, the upper 2-edged, 3 or 4 inches long, spotted with red at the edge and disk, and at the base having a scariose scale. *Flowers* spreading, 5 inches across (in wild specimens) from the tip of the upper sepal to the point of the labellum; the upper sepals linear, spatulate, with long stalks, erect, dark orange, sometimes interrupted with yellow; the lower ovate-lanceolate, falcate, wavy, curled, the length of lip, and like it yellow clouded with orange. *Lip* fiddle-shaped, cordate at base, dilated and emarginate at end, wavy, glandular at base, the glands pale, variegated with purple, and representing the figure of a couchant frog. *Column* short, erect, with spreading, fringed wings.

J. L.

BEAUMONTIA grandiflora.

Large-flowered Beaumontia.

PENTANDRIA *MONOGYNIA.*

Nat. ord. APOCYNEÆ.

BEAUMONTIA Wall.—*Calyx* 5-sepalus: *sepalis* foliaceis, æqualibus, erectis. *Corolla* infundibularis, tubo brevi, limbo maximo, campanulato, 5-lobo: lobis erectis. *Stamina* apice tubi inserta. *Antheræ* sagittatæ, imberbes, circà stigma cohærentes. *Squamæ* faucis nullæ. *Ovarium* rotundum depressum. *Stigma* fusiforme. *Fructus* ..... *Semina* hinc comosa.

B. *grandiflora.* *Wallich in literis.*

Echites grandiflora. *Roxb. Hort. Beng.* 20. *Spreng. sys. veg.* 1. *p.* 634. non Rothii.

Caulis *fruticosus, teres, scandens, glaber.* Ramuli *pubescentes.* Folia *opposita, petiolata, oblonga, obtusa, apiculata, basin versùs attenuata, plana, atro-viridia, glabra, subtùs paululum pubescentes.* Corymbi *terminales, v. axillares, multiflori.* Calyx *pentaphyllus, pubescens, sepalis oblongis, apiculatis, undulatis, margine replicatis.* Corolla *maxima, alba, coriacea, infundibularis, pubescens, tubo angusto calyce breviore, limbo campanulato, quinquelobato, lobis brevibus subrotundis, acuminatis, crispis; sinubus rotundatis; intùs nuda, basi mellifera.* Stamina 5, *in apice tubi inserta, laciniis corollæ alterna, limbo breviora.* Filamenta *filiformia, apice clavata, basi deorsùm incurva, glabra.* Antheræ *in conum connatæ, circà stigma cohærentes, sagittatæ, glabræ; lobis longis introrsùm fulcatis.* Ovarium *rotundum, depressum, melle viscidum.* Stylus *filiformis, filamentis longior, et ob stigma cum antheris cohærens, arcuatus.* Stigma *fusiforme.*

This fine plant has now been known in gardens in this country for some years, under the name of Beaumontia grandiflora, it having been so called by Dr. Wallich, we believe, in compliment to the Lady of Colonel Beaumont, of Bretton Hall, in Yorkshire. But it had not flowered till the individual from which our drawing was made produced its blossoms, in Messrs. Whitley's conservatory, at Fulham.

We are requested to state, that the plant which flowered was sent by Dr. Wallich, in 1818, with many

other valuable subjects, to Messrs. Whitleys, under the care of their friend Captain Craigie.

The genus differs from Echites in the absence of hypogynous glands, and in the ovarium being of one piece instead of two. It is a native of Chittagong, where it flowers from the beginning of November to the end of June. Our drawing was made in June last.

Stem shrubby, round, climbing, smooth. *Branches* pubescent. *Leaves* opposite, stalked, oblong, blunt, point-letted, narrowed towards the base, flat, dark-green, smooth, a little downy beneath. *Corymbs* terminal, or axillary, many-flowered. *Calyx* 5-leaved, downy; leaflets oblong, point-letted, wavy, folded back at edge. *Corolla* very large, white, coriaceous, funnel-shaped, with a narrow tube, shorter than calyx, and a campanulate, 5-lobed limb, of which the lobes are short, roundish, acuminate, crisp: with round sinuses. *Stamens* 5, inserted in the mouth of tube, alternate with segments of corolla, shorter than limb. *Filaments* filiform, clavate at end, curved downwards at the base, smooth. *Ovary* round, depressed, viscid with honey. *Anthers* sagittate, enclosing the fusiform stigma.

J. L.

CARMICHÆLIA Australis.

South-Sea Carmichælia.

DIADELPHIA *DECANDRIA.*

Nat. ord. LEGUMINOSÆ Papilionaceæ. *Br.*

CARMICHÆLIA.—*Calyx* cyathiformis, 5-dentatus. *Ovarium* polyspermum. *Stigma* simplex. *Legumen* oligospermum (1-3 sp.), *replo* post lapsum valvularum persistente!

Frutex *ramosissimus, sub statu florescentiæ sæpiùs aphyllus.* Caulis ramique primarii *teretes,* teneriores *v. plano-compressi v. ancipites,* stipulis *minutis alternatim dentati.* Folia *è dentibus ramorum fruticis junioris, ternata v. pinnata, (foliolis 3-7 obcordatis).* Racemi *simplicissimi è denticulis ramorum; pedicelli basi bractea abbreviata, apice binis minutissimis.* Flores *parvi.* Calycis *dentes subæquales, brevissimi.* Petala *longitudine subæqualia: vexillum lamina latiore quàm longiore, basi absque callis auriculisve;* carina *obtusa.* Filamenta 1-9 *fid.* Antheræ *uniformes, subovales.* Ovarium *lineare,* 5-6 *spermum.* Stylus *subulatus, adscendens.* Stigma *obtusum, imberbe.* Semina *subreniformia, sinu clauso, umbilico nudo.* Brown MSS.

C. Australis. *Brown MSS.*
Lotus *arboreus;* leguminibus quinatis, foliolis obcordatis, caule arboreo. *Forst. prodr. n.* 2.278. *Willd. sp. pl.* 3.1392. *Pers. syn.* 2.354.

For the above character of this very remarkable genus we are indebted to the kindness of Mr. Brown, who, fortunately for science, is in possession of perfectly ripe fruit. The plant was originally discovered in 1769, by Sir Joseph Banks and Dr. Solander, on the eastern side of the northern island of New Zealand, between latitudes 37°—39° south; and an excellent description of it, from the hand of Dr. Solander, exists in the Banksian Library, among the manuscripts of that celebrated voyage, by which the botanical riches of the South Seas were first made known to Europe. George Forster, who afterwards met with it in Dusky Bay, referred it to the genus Lotus; and it is remarkable enough, that Willdenow, who appears to have seen the pods, retains it in the genus where Forster placed it. These differ from the legume either of Lotus or of any other known genus, and offer a new form of fruit

among Leguminosæ, not less distinct than extraordinary. The valves, instead of dividing the pod into two equal portions, as usually happens in papilionaceous plants, or by their cohesion forming an indehiscent fruit, separate in Carmichælia, both from the placentiferous and barren margins which are left upon the plant after the seeds have fallen, and resemble the persistent placentas of a cruciferous capsule with an obliterated dissepiment. The term *replum*, which is employed in Mr. Brown's generic character to designate the persistent circumscription of the legume, was used by Vitruvius for the frame of a door, and, we believe, has been already applied to the purposes of botanical description in the sense in which it is used here, which is certainly unexceptionable.

The garden plant has been compared by Mr. Brown with the specimens from Cook's voyage, in his own collection, and with an authentic specimen from George Forster's Herbarium, as well as by ourselves with others from some part of New Zealand; and no difference has been detected between them.

In explanation of the name applied to this plant, we make the following extract from Mr. Brown's communication upon the subject:

"I have named the genus in honour of my friend, Captain Dugald Carmichael, F.L.S., a very accurate Botanist, whose interesting account of the Island of Tristan da Cunha is published in the 12th volume of the Linnæan Society's Transactions, and to whom I am indebted for extensive collections, and many excellent descriptions of the plants of the island of Mauritius and the Cape of Good Hope."

A hardy greenhouse plant, of the easiest cultivation, forming a branched, leafless bush, with its young branches compressed or two-edged, and toothed on their edges by minute stipulæ. *Leaves* of the young plant are ternate or pinnate, with 3-7 obcordate leaflets. The *Flowers* are small, and of an agreeable lilac colour, and are disposed in little simple racemes, appearing in profusion from the denticulations of the branches. *Calyx* cup-shaped, with 5 nearly equal, very short teeth. *Petals* of nearly equal length: *vexillum* broader than long, without any calli or auricles at the base; *carina* obtuse. *Anthers* uniform, oval. *Ovary* linear, 5-6 seeded. *Style* subulate, ascending. *Stigma* simple, obtuse, beardless. *Pod* 4-seeded (1-3), with the frame persistent after the fall of the valves. *Seeds* uniform, with the recess closed up, and the umbilicus naked.

Our drawing was made in Mr. Colvill's Nursery, in March last. J. L.

973

OXYLOBIUM retusum.

Netted-leaved Oxylobium.

DECANDRIA *MONOGYNIA.*

Nat. ord. Leguminosæ.
OXYLOBIUM. *Suprà vol. 5. fol.* 392.

O. *retusum;* foliis ovatis v. oblongis retusis reticulatis, corymbis capitatis foliis brevioribus.
Chorizema coriacea. *Smith in Linn. Trans.* 9.254. *Rees's Cycl. in loco.*
Oxylobium retusum. *Brown prodr. fl. Nov. Holl. vol.* 2. *ined.*

Rami *subangulati, sulcati, densissimè cinereo-velutini.* Stipulæ *subulatæ, erectæ, tomentosæ.* Folia *petiolata, petiolo brevi, tomentoso; oblonga, v. ovata, retusa, apiculata, superficie eleganter reticulatâ.* Racemi *capitato-corymbosi, pedunculati, axillares v. terminales, foliis multò breviores.* Calyx *campanulatus, quinque-dentatus, villosissimus, basi bracteatus, in exemplaribus spontaneis ferrugineus, in hortensibus argenteus.* Corolla *aurantiaca, purpureo venosa.* Vexillum *transversum, erectum, planum emarginatum.* Alæ *et* Carina *compressa, porrectæ, æquilongæ, purpureæ, vexilli longitudine.*

The genus Oxylobium, as defined by Mr. Brown in the second edition of Hortus Kewensis, is distinguished from Chorizema of Labillardiere by its calyx being nearly regular, not distinctly bilabiate; by the carina being compressed, and as long as the alæ, not inflated and shorter than alæ; and by the pod being ovate and sharp-pointed. In the characters of the flower, the subject of this article agrees better with Oxylobium than with Chorizema, and Mr. Brown has been so kind as to inform us, that the pod is that of Oxylobium, to which genus he has referred it under the name we have adopted.

A handsome greenhouse shrub, native of King George's Sound in New Holland, whence seeds were brought by Mr. J. Richardson. The specimens from which our draw-

ing was made were communicated from Mr. Colvill's Nursery, under the name of *Callistachys capitata*. Wild specimens, collected in King George's Sound by Archibald Menzies, Esq., and preserved in the Banksian Herbarium, present two forms of leaves, one ovate and the other oblong; but they are obviously only different states of the same species.

The leaves, as represented in our plate, are much too acute.

Branches somewhat angular, furrowed, densely velvety, and ash-coloured. *Stipules* subulate, erect, downy. *Leaves* stalked, with a short, downy footstalk, oblong or ovate, retuse, with a little point, their surface elegantly reticulated with prominent veins. *Racemes* capitate-corymbose, stalked, axillary or terminal, much shorter than the leaves. *Calyx* campanulate, 5-toothed, very villous, with a bractea at base, in wild specimens ferruginous, in the garden specimens silvery. *Corolla* orange-coloured, with purple veins. *Vexillum* transverse, erect, flat, emarginate. *Wings* and *Keel* projecting, purple, the length of vexillum.

J. L.

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STYLIDIUM adnatum.

Dwarf Stylidium.

GYNANDRIA *DIANDRIA.*

Nat. ord. STYLIDEÆ. *R. Br.*
STYLIDIUM. *Suprà vol.* 1. *p.* 90.

Div. II. D.—Racemi *caulem foliosum terminantes.* Capsula *compressa, lanceolata v. linearis, collo coarctato.*

S. *adnatum;* caule multiplici: partialibus indivisis, foliis linearibus, spicâ subsessili divisâ: partialibus paucifloris, capsulis basi adnatis linearibus: collo calyce breviore; loculo superiore vacuo angustissimo. *Br. prodr.* 1.572.

Caules *simplices, humiles,* 4-6 *unciales, sulcati, glabri, foliosi.* Folia *linearia, spatulata, patentia, glabra, sub lente minutissimè papillosa, in caule sparsa, ad summitatem verticillata, congesta, longiora.* Spica *terminalis, multiflora, congesta, floribus bracteatis, nunc sessilibus, nunc* 2-4-*natim pedunculatis.* Cal. cor. *et aliæ floris partes non visæ.* Capsulæ *basi cum proximis, si non solitariæ, adnatæ, divaricatæ, lineari-lanceolatæ, collo coarctato triquetræ, biloculares, loculo dorsali minimo vacuo, ventrali ventricoso polyspermo.* Semina *minuta, oblonga, castanea, glabra, inæqualiter sulcata; testa tenui.* Embryo . . . .

For the opportunity of figuring this species of Stylidium we are obliged to Mr John Mackay, to whom seeds of it had been sent from King George's Sound, New Holland, by Mr. William Baxter, in 1824.

It is scarcely more than an annual, but one of the most beautiful little plants we ever saw. The fine green of the neatly-arranged foliage contrasts well with the rich flesh-colour of the flowers.

We have referred it to the *S. adnatum* of Mr. Brown, although there appears to be some differences between the plants raised in this country and the wild specimens examined by Mr. Brown. We find the leaves linear-spatulate rather than perfectly linear, and the capsule

has a somewhat different outline, nor do we think the neck of it can be well considered shorter than the calyx. In the singular structure of its capsule, it agrees perfectly with *S. adnatum*. In the latter respect, the genus Stylidium offers some important deviations from the ordinary structure of Capsules, and exhibits those differences in such perfect gradation, as to make it impossible to doubt the real nature of the fruit of this and other incompletely formed species. The common structure of the capsule of Stylidium is bilocular, with a septum horizontal with respect to the axis of inflorescence, and bearing on each of its surfaces a polyspermous placenta. But in *S. foliatum* the upper cell becomes contracted in its size, so as to be much narrower than the lower cell, the placenta remaining perfect; and in the species before us, the contraction of the upper cell is carried still farther, and is accompanied by the complete obliteration of the placenta belonging to it, the whole dimensions of the cell not exceeding that of a fine tube. This fact, Mr. Brown has remarked to us, explains the real nature of the capsule of the genus Lysipoma of Kunth, in which the placenta is described as parietal; while, in fact, it is only apparently so, in consequence of a similar obliteration of one cell and placenta, the whole cavity of the capsule being occupied by the complete cell, the placenta of which is therefore necessarily pushed to one side, and assumes the appearance of being parietal, as in the S. adnatum now before us.

Stems simple, low, not more than 5 or 6 inches high, furrowed, smooth, leafy. *Leaves* linear-spatulate, spreading, smooth, minutely papillose if examined with a microscope, scattered upon the stem, but at the top of the stem whorled, and packed closely together. *Spike* terminal, many-flowered, clustered. *Flowers* bracteate, sometimes sessile, sometimes 2 or 4 together on a short stalk. *Capsules*, when not solitary, cohering at their base with those next them, spreading, linear-lanceolate, with a contracted neck, 3-cornered, 2-celled; the dorsal cell very small, empty, the ventral one many-seeded. *Seeds* minute, oblong, chesnut-coloured, smooth, unequally furrowed, with a thin testa.

J. L.

y Piccadilly

COTYLEDON decussata.

Cross-leaved Cotyledon.

DECANDRIA *PENTAGYNIA.*

Nat. ord. CRASSULACEÆ.

COTYLEDON L.—Calyx 5-partitus. *Corolla* monopetala, tubulosa, 5-fida. *Stamina* 10, rarius 5, corollæ inserta. *Germina* 5. *Capsulæ* 5.—— Herbæ *aut* Suffrutices. Folia *opposita aut alterna, interdum pinnata.* Flores *terminales, corymbosi, aut spicati.* Juss. gen. 207.

C. *decussata;* fruticosa, foliis concinnè decussatis subteretibus mucronatis glaucis, floribus paniculatis pendulis. *Bot. Mag.* 2518.

Cotyledon foliis angustis oppositis, cum limbo purpureo, floribus pendulis. *Burm. afr. t.* 22. *f.* 1.

C. papillaris. *Haw. Suppl. succ. p.* 21. *revis. succ.* 20 *non Thunbergii.*

Our drawing of this species of Cotyledon was made from the collection of Mr. Hood, of South Lambeth, in May 1824, a figure having been at the same time furnished for the Botanical Magazine, a circumstance of which we were not at the time aware.

Not having seen either plant or specimen, we are unable to offer any original description of the species. In the work to which we have already alluded it is thus described.

Stem shrubby, erect, but very little branched. *Leaves* opposite crosswise, sessile, fleshy, nearly cylindrical, somewhat flattened on the upper side, glaucous, or even hoary, narrowed at both ends, varying somewhat in shape, and terminated with a dark purple mucro. *Common peduncle* terminal, erect, smooth, half a foot long, purple, nearly naked, or furnished with a pair of smaller leaves only, terminated by a panicle of many pendulous red flowers. *Calyx* 5-toothed, four times shorter than the tube

of the corolla. *Corolla* large, shewy, red; *tube* cylindrical, nearly an inch long; *limb* half the length, divided into 5 laciniæ, rolled back. *Stamens* 10, exserted: *filaments* pass through a hairy ring, near the bottom of the tube; *anthers,* before the flower opens, upright, with four grooves. *Styles* 5, rather longer than stamens: *stigmas* lobular, villous. *Nectaries* 5 concave scales, one at the base of each germen.

There can be no doubt, after an inspection of the Flora Capensis of Thunberg, that his *Cotyledon papillaris* is a species altogether distinct from this.

J. L.

... Ridgway 169 Piccadilly ... 1825.

LECHENAULTIA formosa.

Beautiful Lechenaultia.

PENTANDRIA *MONOGYNIA.*

Nat. ord. GOODENOVIÆ. *R. Br.*

LECHENAULTIA. R. Br.—*Calyx* superus. *Corolla* tubo hinc longitudinaliter fisso. *Antheræ* subanthesi cohærentes. *Pollinis* granula composita. *Stigma* obsoletum, in fundo indusii bilabiati. *Capsula* prismatica, bilocularis, 4-valvis, valvis oppositis medio septiferis. *Semina* cubica v. cylindracea, nucamentacea.——Fruticuli (raro Herbæ) *glabri, foliis angustis, integerrimis.* Flores *axillares v. terminales, subsolitarii.* Br. Prodr. 1.581.

Div. I.—Fruticuli *ericifolii.* Flores *axillares v. terminales.* Capsula *valvata.* Semina *cubica.*

L. *formosa;* floribus axillaribus solitariis ebracteatis nutantibus, corollis bilabiatis glabris. *Br. l. c. Rom. et Sch. v. 5. p.* 34. *Sprengel syst. veg.* 1.719.

Fruticulus *glaber, multicaulis.* Ramuli *gracillimi, angulati.* Folia *sparsa, linearia, triquetra, patentia.* Flores *aurantiaci, e summitate ramulorum axillares, solitarii, nutantes, pedunculati; pedunculo filiformi, foliis duplo longiore.* Calyx *5-phyllus, patens, sepalis linearibus acutis.* Corolla *bilabiata, resupinata, hinc (dorso?) fissa, tubo subcylindrico, glabro, intùs versus basin hirsuto, 5-angulari, angulis cum laciniis corollæ alternis,* labio altero (*superiore?*) *lobis duobus semi-elliptico-lanceolatis, acuminatis, conniventibus,* altero (*inferiore?*) *lobis tribus, patentibus, unguiculatis, altè obcordatis, apiculatis, binervibus, areolâ mediâ planè: lateralibus subplicatis.* Stamina *5, basi tubi inserta, hirsutie tubi paulo longiora.* Filamenta *filiformia, glabra, basi dilatata.* Antheræ *lineares,* .... Ovarium *inferum, cum pedunculo continuum.* Stylus *tubi corollæ longitudine, rectus, parcè glandulosus, versùs apicem sensim attenuatus.* Indusium *purpureum, tomentosum, cyathiforme compressum, bilabiatum.* Stigma *parvum, transversum, in basi indusii.*

This genus was instituted by Mr. Brown, in his *Prodromus Floræ Novæ Hollandiæ;* and is distinguished from all the neighbouring genera of its order, and especially from Anthotium, by having each of the granules of its pollen composed of 4 little spherical bodies; a minute but beautiful distinction.

The plant from which our drawing was taken, was raised in 1824, among a multitude of other curious things, by Mr. Mackay, of the Belgrave Nursery, Pimlico, at his establishment, Upper Clapton. The seed had been collected at King George's Sound, by Mr. William Baxter.

A pretty little shrub, producing its delicate orange-coloured flowers in June.

The indusium, or peculiar covering to the stigma, is highly curious, and much developed in this plant, forming a compressed, two-lipped purple cup, covered with soft down on the outside, and completely enclosing the green viscid stigma which occupies the lowest part of its cavity. It appears to serve the purpose of scooping the pollen out of the anthers of the flower to which it belongs, and retaining it there while necessary; at least all the indusia we have examined were uniformly filled with granules of pollen. With respect to the nature of that singular organ, or appendage itself, we can have no opinion to offer so valuable as that already given upon the subject by Mr. Brown, in his General Remarks upon the Botany of New Holland, appended to Captain Flinders's Voyage.

"This order I have formerly separated from *Campanulaceæ,* considering the peculiar membranous cup surrounding the stigma, along with a certain irregularity in the corolla, as sufficient distinguishing characters, especially as these are accompanied by other differences which appear to me important. In Goodenoviæ I have not included Lobelia, which, however, has also an irregular corolla, and although it wants the peculiar indusium of the stigma, has in its place a fasciculus or pencil of hairs surrounding that organ. This structure has been regarded by Jussieu and Richard, in a very learned memoir more recently written on the subject, analogous to the indusium of Goodenoviæ, to which they have therefore added Lobelia, and derived the name of the order from this, its most extensive and best known genus. To the opinion of these authors I hesitate to accede, chiefly for the following reasons:

1st. In Goodenoviæ, the deeper fissure of the tube of the corolla exists in its inner or upper side, a circumstance readily determined in those species having simple spikes. In Lobelia, on the other hand, the corresponding fissure is

on the outer or lower side; a fact, however, which can only be ascertained before the opening of the corolla, the flowers, in the greater number of species, becoming resupinate in the expanded state,—a circumstance which does not appear to have been before remarked. The relation, therefore, not only of the corolla, but of the calyx and stamina to the axis of inflorescence, is different in these two tribes.

2dly. In Goodenoviæ, the greater part of the tube of the corolla is formed by the cohesion of 5 laciniæ, the distinct inflected margins of which are, in most cases, visible nearly to its base. These laciniæ are, in some cases, unconnected, as in *Diaspasis*, and more remarkably still, in *Cyphia*, which is actually pentapetalous. I have observed no such structure in Lobelia.

3dly. At the period of bursting of the antheræ, the stigma in Lobelia is almost completely evolved, and capable of receiving impregnation from the pollen of the same flower: the function, therefore, of its surrounding pencil is similar to that of the hairs, which are almost equally obvious in many compositæ, especially Cinarocephalæ. On the contrary, in Goodenoviæ, the stigma at the same period is hardly visible, and is certainly not then capable of receiving impregnation from the pollen of its proper flower: it is, therefore, either impregnated by the antheræ of different flowers, or, in some cases, at a more advanced stage, by the pollen of its own antheræ, which is received and retained in the Indusium. To these arguments for the exclusion of Lobelia I may add, that, in the greater part of Goodenoviæ, with dehiscent fruit, the dissepiment is parallel to the valves of the capsule, in which respect they differ equally from Lobelia and the valvular-fruited Campanulaceæ; and lastly, that many species of Lobelia, as well as Campanulaceæ, contain a milky juice, of which there is no instance in Goodenoviæ. If, therefore, in Lobelia the pencil surrounding the stigma, and the irregularity of the Corolla, which, however, in some species is hardly perceptible, be considered as characters sufficient to separate this extensive genus from Campanulaceæ, it may form a separate order, admitting, perhaps, of subdivision into several distinct genera."

A smooth, many-stemmed, little *shrub*. *Branches* very slender, angular. *Leaves* scattered, linear, 3-cornered, spreading. *Flowers* orange-coloured, axillary at the top of the little branches, solitary, nodding, stalked. *Peduncle* filiform, twice as long as leaves. *Calyx* 5-leaved, spreading, with linear, acute sepals. *Corolla* 2-lipped, resupinate, slit on one side; *tube* subcylindrical, smooth, hairy inside at the base, 5-angled, angles alternate with segments of corolla; one lip consisting of two half-elliptical-lanceolate, acuminate, conniving lobes, the other lip with three spreading, clawed, deeply obcordate, point-letted lobes, which are 2-nerved, the middle space being flat, the lateral spaces plaited. *Stamens* 5, inserted at the base of the tube, and a little longer than its hairiness. *Filaments* filiform, smooth, dilated at base. *Anthers* linear. *Ovary* inferior, continuous with the peduncle. *Style* the length of tube of corolla, straight, with a few glands, narrowed by degrees towards the end. *Indusium* purple, downy, cup-shaped, compressed, 2-lipped. *Stigma* small, transverse, lying in the bottom of indusium.

J. L.

HIBISCUS racemosus.

Nepal Hibiscus.

MONADELPHIA *POLYANDRIA.*

Nat. ord. MALVACEÆ.
HIBISCUS.—Suprà, vol. 10. *fol.* 860.

H. *racemosus;* caule-fruticoso hispido pruriente, foliis 5-lobis longè pedunculatis cordato-subrotundis serratis tomentosis, racemis terminalibus.

We must take some future opportunity of ascertaining the station which is to be assigned to this species in the genus Hibiscus, not having had an opportunity of inspecting the flowers. It does not appear referable to any published species, nor have we seen it in any collection of dried plants.

It is a shrubby plant, producing blossoms in abundance, and was raised at Mr. Colvill's Nursery, from Nepal seeds, communicated by Edward Rudge, Esq.; it has also been obtained, at the same establishment, from others given to Mr. Colvill by Mr. Hood, of Vauxhall, under the name of Hibiscus racemosus. The stem is covered over with an infinite number of acicular, stellate, transparent hairs, which, upon being pressed, excite a stinging sensation, like Hibiscus pruriens, to which we suspect this plant to be nearly allied. The foot-stalks are more than twice as long as the leaves, ascending, round, and covered with a soft hairiness.

J. L.

Note upon Ipomæa Latiflora, *fol.* 889.

We are informed by the Honourable and Reverend William Herbert, that our drawing of this plant was made, some years since, from a sketch and specimen supplied from his collection at Spofforth. Mr. Herbert is of opinion that the species is distinct both from the *I. grandiflora* of Roxburgh, and the *Ipomæa latiflora* of Desrousseaux. Having, as we stated at the time of publishing the plant, had no opportunity of seeing it, we are glad to avail ourselves of the following description and history of the species, for which we are obliged to Mr. Herbert, who proposes to call it

IPOMÆA noctiluca.

" *Planta* perennis, sepiaria; *caulis* vix suffruticosus, volubilis, glaber, subrubescens. *Folia* glabra, sinu profundo ad basin excisa, acuminata, acumine angusto producto, 3-5-uncialia, petiolo parte superiore canaliculato, 1-7-unciali, foliis plerumque longiore, ad basin foliorum tomentoso. *Pedunculi* axillares, 1-5-flori, 1-5-unciales, subrubescentes, glabri, pedicellis carnosis parte superiore crassioribus, augescente germine cum fructu nutantibus. *Calyx* brevis, unguiculatus, subrubescens, foliolis apice rotundato eroso, exteriorum trium costâ mediâ in unguem reflexam, internorum duorum superioris in unguem longam, inferioris in brevem productâ. *Corolla* limbo $5\frac{1}{2}$-unciali expanso, breviter quinque-lobo, albo, lobis sub-rotundatis, latere exteriore radiis quinque viridibus notato; *tubo* cylindrico, $3\frac{1}{2}$-unciali, pallidè virente, ad basin albicante. *Stamina* faucem exsuperantia; *filamenta* alba, basi pubescentia. *Antheræ* pallidissimè flavescentes. *Stigma* rotundatè bilobum, album. *Capsula* uncialis, ovalis, longè acuminata, bilocularis, loculis bispermis. *Semina* glabra, alba, oblonga, apice acuminato, obsoletè trigona, uno latere planiusculo, duobus rotundatis, quorum alterum angustius. *Flores* nocturni, odorati." *Herbert MS.*

" Raised from seed from Manilla in 1813, labelled Moonflower, and since from Chinese. It flowers regularly at Spofforth after the two equinoxes. Differs from Ipomæa bona nox, in being of inferior stature, flowering even in a pot of which the diameter is less than that of its flower, whereas bona nox climbs to the top of the loftiest trees, with a stem as thick as a man's wrist; in having smooth branches without spinous roots; in not producing sarmentose shoots with halbert-shaped leaves in the autumn, as bona nox does; in its leaves being less glossy, paler, flatter, and more rounded, with a long taper point; the outer leaflets of the calyx having the claws shorter, and bent back, or standing out, instead of being awned with the points crossing each other; in its seeds being white, instead of dark brown; in its flowers being larger, produced after the equinoxes in our stoves, where bona nox flowers in the summer. Ipomæa grandiflora of Roxburgh, raised several times from Bengal seeds, was similar to bona nox. I never received seed of noctiluca from Bengal, but I sent them to Calcutta about the year 1819." *Herbert MS.*

J. L.

918

JASMINUM trinerve.

Three-nerved Jasmine.

DIANDRIA *MONOGYNIA.*

Nat. ord. JASMINEÆ.
JASMINUM. *Vide suprà vol.* 1. *fol.* 1.

Div. foliis simplicibus.

J. *trinerve;* scandens, glaberrimum, foliis simplicibus ovato-oblongis acuminatis trinervibus, laciniis calycis subulatis (6-7) abbreviatis, corollæ lanceolatis (7-8) tubo multò brevioribus.

J. trinerve. *Vahl symb.* 3. *p.* 2. *enum.* 1. *p.* 28. *Willd. sp. pl.* 1. 38. *Pers. syn.* 1.7. *Rom. et Schultes sp. pl.* 1.81. *Link. enum.* 1.31.

Volubile, glaberrimum, altè scandens. Rami *teretes, atrovirides.* Folia *opposita, simplicia, petiolata, ovato-oblonga, acuminata, trinervia, venis paucis transversis versùs apicem ferè utrinque immersis.* Cymi *pauciflori, terminales, glabri, bracteis subulatis persistentibus, patentibus.* Calyx *glaberrimus, laciniis 6-7 subulatis, obtusis, tubo corollæ multoties brevioribus.* Corolla *alba, tubo cylindrico paulò versùs apicem clavato, limbo 7-8 partito plano;* laciniis *æqualibus, lanceolatis, tubo ad minimum duplò brevioribus.*

As far as we can judge by Vahl's description of Jasminum trinerve, it appears to us that there is no material difference between his plant and the present; the only point in which they do not agree being the compound nature of the inflorescence of this plant, and the solitary flowers of J. trinerve. But this difference cannot be esteemed important, it having been remarked by Roxburgh, that the flowers of his Jasminum trinerve were solitary the first year the plant blossomed in the Botanic Garden, Calcutta, but became nine in a succeeding season. We have not, however, met with any authentic specimens of Vahl's species.

As to the Jasminum trinerve of the Flora indica, although no one has remarked the great discrepancy between the accounts of Roxburgh and of Vahl, it seems to us

that it must be a totally different plant from the J. trinerve of the latter. Roxburgh describes his species with short petioles, having a remarkable joint in their middle, a calyx of six subulate segments, nearly half as long as the tube of the corolla; and with a large corolla, the segments of which are filiform, and an inch and half in length. With none of these characters does the subject of the present article agree. We may add, that J. trinerve of Vahl is a native of Java, while Roxburgh's species is found in forests near Sylhet.

For the above reasons, the synonyms of Roxburgh's J. trinerve may be amended thus:

J. *stenopetalum;* scandens, lævigatum, foliis simplicibus, ovato-lanceolatis acuminatis trinervibus, laciniis calycis subulatis dimidio tubi longitudine, corollæ (6-8) filiformibus tubo multò longioribus.

J. trinerve. *Roxb. Fl. Ind.* 1.91. *Rom. et Schultes sp. pl. mant.* 7.89. *Ker. in Bot. Reg.* 9. *in app.* non Vahlii.

To J. simplicifolium, the subject of this article is nearly related, but that species may at once be distinguished by its leaves not being 3-nerved. We also find, in wild specimens from the Friendly Islands, formerly communicated to us by Sir Joseph Banks, that the calycine segments of J. simplicifolium are downy; but we are uncertain whether that is a permanent character.

We do not know upon what authority the *Mogorium acuminatum* of Lamarck, described with cirrhose petioles, is referred to J. trinerve as a synonymous plant. Persoon retains it as a distinct species.

Our drawing was made at Mr. Colvill's Nursery.

A robust stove plant, twining to a great length before it flowers. The *branches* are round, and dark green; the *leaves* opposite, simple, stalked, ovate-oblong, acuminate, 3-nerved, with a few transverse veins towards the end, which are almost immersed on both sides. *Cymes* few-flowered, terminal, smooth, with subulate persistent spreading bracts. *Calyx* quite smooth, with 6 or 7 subulate blunt segments, which are much shorter than the tube of the corolla. *Corolla* white, with a cylindrical tube, which is a little thickened towards the end, and a 7-8 parted flat limb, the segments of which are equal and lanceolate, and at least twice as short as the tube.

J. L.

ROSA microphylla.

Small-leaved Chinese Rose.

ICOSANDRIA *POLYGYNIA.*

Nat. ord. Rosaceæ *veræ.*
ROSA. *Suprà vol.* 1. *fol.* 46.

Div. ix. Caninæ. *Aculei æquales adunci.* Foliola *ovata eglandulosa, serraturis conniventibus.* Sepala *decidua.* Discus *incrassatus faucem claudens. Surculi majorum arcuati.* Lindley.

R. *microphylla;* foliolis nitidis argutè serratis, calyce aculeis densissimis muricato, sepalis brevibus latè ovatis apiculatis. *Lindl. ros. mon.* 146.

R. microphylla. *Roxb. fl. ind. ined. Lindley ros. mon. p.* 9. *ed. gall. p.* 104. *Trattinn. ros.* 2. *fol.* 194.

The earliest information European Botanists received of this plant, was through a collection of Chinese drawings in the possession of Mr. Colebrooke; upon the authority of which it was first taken up in any scientific arrangement. It was originally supposed to be related to the Macartney Rose, chiefly on account of what appeared in the drawing to be large pectinated bracteæ. But upon a subsequent examination of dried specimens sent from the Botanic Garden Calcutta, it was ascertained to be referable to the same section as the Rosa indica of the gardens.

The living plant does not appear to differ, in any respect, from that of the Botanic Garden Calcutta, whence it is to be presumed that the individuals now in this country were derived. Probably it will not be found more tender than other kinds of Chinese Roses, but its extreme rarity has hitherto prevented its being tried in the open air. Our drawing was made last July, from a plant in a greenhouse at Mr. Colvill's Nursery, where it has now flowered for the first time in Europe.

In some nurseries we have been shewn it as a new double yellow China Rose. The Chinese are said to call it *Hoi-tong-hong*. It is the most elegant of all the roses we are acquainted with, and in the Rosarum Monographia of the writer of this article, is thus described:

A little, compact, bright green plant. *Branches* naked, slender, somewhat flexuose; *prickles* under the stipules, straight. *Stipules* very narrow, spreading at the top. *Petioles* somewhat prickly, very slender; leaflets 5-9, very small, shining, roundish ovate, pointed, quite free from pubescence, finely serrated. *Flowers* solitary, with a narrow pointed bractea, very double, pale red. *Calyx* covered all over with very close set, straight prickles; *tube* round; *sepals* very short, dilated, pointed, downy at the edge, (like those of R. bracteata in shape).

J. L.

920

ONCIDIUM pumilum.

Mr. Herbert's Dwarf Oncidium.

GYNANDRIA *MONANDRIA.*

Nat. ord. Orchideæ. *Div.* Epidendreæ.
ONCIDIUM. Suprà fol. 727.

Div. 1. *Perianthii foliola omnia discreta.* Lindl. Coll. bot. xxvii.

O. *pumilum;* foliis rigidis ovalibus obliquis, paniculâ erectâ thyrsoideâ foliorum longitudine, laciniis perianthii obovatis: superioribus maculatis, labello trilobo cristato: lobis æqualibus ovatis, alis columnæ integerrimis.

Herba *parasitica, pumila, sempervirens, bulbis nullis.* Folia *disticha, patentia, ovalia, rigida, avenia, sæpiùs apice et basi ob torsionem obliqua.* Scapus *terminalis, erectus, paniculatus, thyrsoideus, brachiatus.* Flores *luteo-brunnei, parvi.* Perianthium *patens, 5-partitum, laciniis obovatis, subundulatis, apice incurvis: superioribus fusco maculatis, inferioribus immaculatis.* Labellum *luteum, planum, subrotundum, trilobum: lobis ovatis, obtusis, subæqualibus: intermedio paulò minore, disco callis duobus longitudinalibus sinubus loborum oppositis cristato.* Columna *alis parvis, integerrimis, rotundatis.* Anthera *rostrata.*

This pretty new species of Oncidium was communicated to us by the Honourable and Rev. Wm. Herbert, from his collection at Spofforth. It was found by one of his collectors upon the trunk of a Bombax Ceiba, between Rio Janeiro and Boto Fogo. It flowers in June, and grows readily in a stove, in a mixture of dead wood and moss, as indeed does the whole genus, which is, perhaps, the most easily cultivated of all the tribes of Orchideæ.

It has been contended by some recent Botanists, that the modern principles upon which Orchideous plants are divided into genera are inadmissible; and we believe that their judgment is influenced, in a great degree, by per-

ceiving, that a large number of recently formed genera consist of one or two species only. But to such objections, it appears to us that the genus Oncidium itself is a sufficient reply. It consists of a considerable number of species, we believe 23, to which there can be no doubt that many more will be added ; the species have decidedly-marked combining characters in their habit, as well as in the structure of their floral organs, and their union in one genus is in no instance affected by modern principles of analysis, the application of which to some other genera, even of Swartz himself, has sometimes shaken his combinations into almost as many genera as species. But if the mode of limiting genera to which we allude were unsatisfactory, and tended only to disunion, it would scarcely admit so large an assemblage of individuals as Oncidium presents, in a state of combination, nor would the newly-discovered species of Orchideæ be continually reinforcing the identical genera, which are pronounced unnecessary, upon the ground of their thinness of species.

A dwarf, evergreen, parasitical *herb*, without bulbs. *Leaves* distichous, spreading, oval, rigid, veinless, generally having an oblique direction, on account of a twist at their two ends. *Scape* terminal, erect, panicled, thyrsoid, brachiate. *Flowers* yellowish-brown, small. *Perianthium* spreading, 5-parted, with obovate segments, which are a little wavy and incurved at the end : the 3 upper mottled with brown, the lower not mottled. *Lip* yellow, flat, roundish, 3-lobed ; with ovate, blunt, nearly equal lobes ; the middle one being rather smaller than the others, and having on its disk two longitudinal protuberances opposite the recesses of the lobes. *Column* with small entire rounded wings. *Anther* beaked.

J. L.

921

TESTUDINARIA elephantipes.

Hottentot's Bread.

DIŒCIA *HEXANDRIA.*

Nat. ord. DIOSCOREÆ.

TESTUDINARIA Salisb.—Perianthium 6-partitum, patens: laciniis linearibus subæqualibus. ♂. *Stamina* 6, basi laciniarum inserta. ♀. *Styli* 3-coaliti. *Capsula* membranacea. *Semina* alata.——Herbæ *ramis annuis volubilibus,* caudice *maximo rimoso.* Flores masculi *racemosi multiflori,* fœminei *subsolitarii.*

T. *elephantipes;* foliis reniformibus planis apiculatis utrinque concoloribus.
Tamus elephantipes. *Ait. Kew. ed.* 1[a].—*ed.* 2[a]. 5.386. *Willd. sp. pl.* 4.772.
Bot. Mag. 1347, ♀. *Pers. syn.* 2.618. *Link. enum.* 2.426.
Testudinaria elephantipes. *Burchell's travels,* 2.147.

Omni parte glaberrima. Caudex *maximus, subrotundus, suberosus, cortice undique altè rimosâ.* Rami *volubiles graciles.* Folia *alterna, petiolata, cordata, reniformia, acuminata, apiculata, 7-nervia, avenia, utrinque pallidè virentia, lucida.* Flores *dioici, odore debili, ingrato, primùm albidi, post anthesin lutescentes.* ♂. Racemi *erecti, nunc axillares, nunc, ad nodos, oppositifolii, multiflori, internodiis longiores, minutissimè puberuli.* Pedicelli *basi et apice bracteati, bracteis ovatis minutis persistentibus.* Perianthium *erectum, campanulatum, carnosum, limbo sexpartito reflexo: laciniis exterioribus linearibus acutis, interioribus lineari-spatulatis retusis.* Stamina 6, *ad basin laciniarum inserta;* filamentis *a latâ basi subulatis;* antheris *anticis, subrotundis, bilocularibus, adnatis; loculis septo incompleto longitudinaliter divisis.* Pollen *parvum oblongum.* Rudimentum *styli trilobum.*

This very remarkable plant was first introduced by the late Mr. Masson, who found it growing wild at the Cape of Good Hope. The plants which he sent to Kew having been males, the genus could not be ascertained satisfactorily; but from the resemblance of the male flowers to those of Tamus, it was referred to that genus till the females should be discovered. Afterwards when that sex was produced upon a plant which flowered at Mr. Joseph Knight's Nursery, the structure of the ovarium was considered to be the same as that of Tamus, and accordingly we find the female figured in the Botanical

Magazine without remark to the contrary. But Mr. Burchell having discovered it in abundance near Graaf-rennet bearing fruit, which he describes as a membranous capsule, a new genus has been constituted, and named in allusion to the resemblance the caudex bears to a tortoise. To this genus, which is more nearly related to Dioscorea than to Tamus, a second species has been added by Mr. Burchell, with the following name and character:—

Testudinaria montana; foliis cordatis semicollapsis latioribus, quàm longis obsoletè nervosis subtùs glaucis.

A hardy greenhouse plant, pushing out its annual twining stems to the length of 8 or 10 feet, and flowering from July to November. The old stems, which are occasionally brought from the Cape, and in the grotesque figure of which the principal interest about the plant consists, are easily cultivated in any common greenhouse; but no means of artificially propagating it has yet been discovered. Mr. Burchell speaks of it in the following manner:—

"These mountains are the native soil of an extraordinary plant called *Hottentot's Brood* (Hottentot's Bread). Its bulb stands entirely above ground, and grows to an enormous size, frequently 3 feet in height and diameter. It is closely studded with angular ligneous protuberances, which give it some resemblance to the shell of a tortoise. The inside is a fleshy substance, which may be compared to a turnip, both in consistence and colour. From the top of this bulb arise several annual stems, the branches of which have a disposition to twine round any shrub within reach. The Hottentots informed me, that in former times they ate this inner substance, which is considered not unwholesome when cut in pieces and baked in the embers. It will easily be believed, that this food may not be very unlike the yam of the East Indies, since the plant belongs, if not to the same, at least to a very closely allied genus, as the membranaceous capsules, with which it was at this time covered, clearly proved."

J. L.

AQUILEGIA atro-purpurea.

Purple-flowered Columbine.

POLYANDRIA *PENTAGYNIA.*

Nat. ord. RANUNCULACEÆ. *Trib. IV.* Helleboreæ.

AQUILEGIA L.—Calyx 5-sepalus deciduus colorato-petaloideus. *Petala* 5, supernè hiantia bilabiata, labio exteriore magno plano, interiore minimo, deorsum producta in calcaria totidem cava apice callosa inter sepala exserta. *Stamina* plurima in phalanges 5-10 disposita, interiora abortiva, *antheris* nullis, *filamentis* dilatatis membranaceis oblongis. *Ovaria* 5. *Capsulæ* totidem erectæ, polyspermæ stylis acuminatæ.——Herbæ *perennes erectæ ; radices fibrosæ ; folia radicalia aut inferiora longè petiolata,* petiolo *trifido biternatim secto,* segmentis *trifidis dentatis sæpiùs obtusis ; superiora in lobos lineares partita aut secta ;* flores *terminales cærulei, albi, rosei aut purpurei, rarissimè sordide flavescentes.* Decand. regn. vig. syst. 1.333.

A. *atro-purpurea ;* calcaribus rectis limbo æqualibus, stylis staminibusque sepala subæquantibus, sepalis longitudine petalorum. *Dec. l. c.* 1.339. *prodr.* 1. 51.

A. viridiflora ; *β*, nectariis cœrulescentibus. *Willd. sp. pl.* 2.1247.

A. *atro-purpurea ;* nectariis rectis, apice incrassato subinflexis, petalis longitudine nectarii, stylis staminibusque corollam æquantibus. *Willd. enum.* 1.577. *Link. enum.* 2.85.

β. Dahurica ; stylis exsertis.

A. Daourica. *Dec. syst.* 1.338. *Delessert's Icones Selectæ,* 1, *t.* 49.

A. atro-purpurea ; *β*, Dahurica, *et γ*, Fischeriana. *Decand. prodr.* 1. 51.

Herba *perennis,* 1-1½ *pedalis.* Folia *erecta, longè petiolata, scapo paulò breviora, petiolo bis trifido, foliolis cuneatis trilobis* 2-3-*dentatis, suprà glabris, subtùs pilosiusculis.* Scapus *erectus, foliosus, simplex v.* 2-3-*partitus.* Flores *campanulati, nutantes, fusco-purpurei.* Sepala *oblonga, obtusa, subvirescentia, petalorum truncatorum longitudine.* Calcaria *recta, apice incrassata subinflexa, petalis paulò breviora.* Styli *exserti.*

A pretty, little, neat, hardy herbaceous plant, native of Siberia. It flowers in the open border, in any common light soil, from April till June. Our drawing was made in the garden of the Horticultural Society at Chiswick, where it had been raised from Siberian seeds communicated by Dr. Fischer.

This species was taken up by M. De Candolle, in the first volume of his *Systema*, without having seen specimens, upon the authority of Willdenow, who had first, in his *Species Plantarum*, distinguished it as a particular variety of A. viridiflora, and afterwards in his *Enumeration* of the plants in the Berlin garden, raised it to the rank of a species. M. De Candolle at the same time described from Patrin's Herbarium, a plant collected in Dahuria, which he called *A. Daourica*, under which appellation we find it subsequently figured in Baron Delessert's valuable illustrations of M. De Candolle's work. But it appears, that before the preparation of the materials for his *Prodromus*, the learned Professor discovered the specific identity of his A. Daourica, and Willdenow's A. atro-purpurea. In the last-mentioned work, we therefore find the former arranged as a variety of the latter, and distinguished by its exserted styles; and an addition of a third variety, communicated by Dr. Fischer as A. atro-purpurea. The difference between these two last supposed varieties of A. atropurpurea is stated to depend upon the leaves of β (*A. daourica*) being smooth, while those of Dr. Fischer's plant are villous beneath. But among the various individuals which we examined at the time our drawing was made, we observed the lower side of the leaves to vary much in degree of pubescence, from being almost villous to being quite smooth. We have, therefore, ventured to unite the varieties β and γ into one. We also remarked so much variation in the length of the styles, that we cannot help entertaining doubts of the separation even of β from α.

A perennial herbaceous plant, 1 foot to 1½ foot high. *Leaves* erect, on long stalks, a little shorter than the scape; petiole twice trifid, the leaflets cuneate, 3-lobed, and 2 or 3-toothed, smooth above, and more or less hairy beneath. *Scape* erect, leafy, simple, or with 2 or 3 divisions. *Flowers* campanulate, nodding, brownish-purple. *Sepals* oblong, blunt, greenish, as long as the truncated petals. *Spurs* straight, thickened at the end, and a little bent inwards, somewhat shorter than petals. *Styles* exserted.

J. L.

CACALIA salicina.

Willow-leaved Cacalia.

SYNGENESIA *ÆQUALIS.*

Nat. ord. Compositæ. *Juss.* Sect. *Senecioneæ* Cassini.

CACALIA L.—Involucrum profundè multipartitum, calyculatum; laciniis æqualibus. *Receptaculum* nudum. *Flosculi* omnes tubulosi, hermaphroditi. *Antheræ* basi nudæ. *Pappus* pilosus sessilis.——Arbores, frutices, *vel* herbæ, *polymorpha, alternifolia.* Flores *terminales, solitarii, corymbosi vel paniculati, flavi, lutei, aurantiaci, purpurei, rosei, albi, vel virescentes.* Kunth. synops. 2.443.

C. *salicina;* fruticosa, foliis oblongo-lanceolatis connatis subtùs tomentosis, racemis axillaribus. *Labill. nov. holl.* 2. *p.* 37. *tab.* 179. *Pers. syn.* 2.396.

Frutex *ramis crassis, cinereis, tomentosis, vestigiis foliorum deciduorum cicatrizatus.* Folia *sparsa, versùs apicem ramorum congesta, petiolata, lanceolata, convexa, margine denticulata, supernè rugosa, viridia, glabra, subtùs incana, reticulata.* Capituli *sessiles, axillares, glomerati, non multùm petiolo longiores, bracteis paucis, linearibus, obtusis, tomentosis interstinctis.* Involucrum *campanulatum, polyphyllam, imbricatum, basi bracteolis 2-3 subulatis: foliolis æqualibus, distinctis, margine scariosis, dorso et apice lanatis.* Flosculi *lutei, omnes hermaphroditi, infundibulares, erecti, limbo 5-lobo, patente, tubo paulò breviore.* Antheræ *basi muticæ, filamentis glabris.* Ovaria *teretia, glabra, mutuo compressione angulata, basi æqualia, apice dilatata.* Pappus *longus, sessilis, apice pilosus, basi asper, serie simplici insertus.* Stylus *glaber, basi bulbosus, disco epigyno parvo.* Stigma *bilobum, lobis linearibus arcuatis, obtusis, medio sulcatis dorso minutissimè papilloso, versùs apicem hispido.* Receptaculum *favosum, paleolis inæqualibus subulatis, nunc, sed raro, in paleam filiformem involucri longitudine elongatis.*

That this plant, and we suppose also C. *linearis*, is of quite a distinct genus from Cacalia, we apprehend there can be little doubt. From Cacalia, as constituted by Linnæus, or left by Willdenow, or limited by M. Cassini, it is distinguished by its imbricated downy involucrum, with a few linear bracteæ at the base, by its axillary inflorescence, by its receptacle, the fine ragged paleæ of

which are sometimes elongated into subulate processes as long as the involucrum, and by its whole habit. It is equally distinguishable from Adenostyles and Emilia. We do not, however, wish to interfere with the arrangement of the New Holland Compositæ, by Mr. Brown, the result of whose valuable labours upon the subject will, we trust, be soon before the public.

Raised from New Holland seeds presented to Mr. Colvill by Edward Barnard, Esq. It is a hardy greenhouse plant, requiring no particular treatment, and flowering in August.

A *shrub*, with thick, ash-coloured, downy branches, scarred with the remains of the fallen leaves. *Leaves* scattered, clustered towards the end of the branches, stalked, lanceolate, convex, toothed at the edge, on the upper side rugose, green and smooth, on the under side hoary and netted. *Heads* sessile, axillary, clustered, not much longer than the leafstalks, with a few linear, blunt, downy bracteæ between. *Involucrum* campanulate, many-leaved, imbricated, with 2-3 subulate bracteæ at the base; *leaflets* equal, distinct, scarious at the edge, woolly at the back and ends. *Flosculi* yellow, all hermaphrodite, funnel-shaped, erect, with a 5-lobed spreading limb, a little shorter than the tube. *Anthers* without awns at the base, with smooth filaments. *Ovaria* round, smooth, angular by mutual compression, equal at base, a little dilated at end. *Pappus* long, sessile, hairy at end, rough at base, inserted in a single row. *Style* smooth, bulbous at base, with a small epigynous disk. *Stigma* 2-lobed, with linear recurved lobes, which are blunt, furrowed down the middle, slightly papillose at the back, hispid towards the ends. *Receptacle* favose, with little unequal subulate paleæ, sometimes lengthened into a filiform palea as long as the involucrum.

J. L.

BLANDFORDIA grandiflora.

Large-flowered Blandfordia.

HEXANDRIA *MONOGYNIA.*

Nat. ord. Hemerocallideæ. *Br. prodr.* 1.295.
BLANDFORDIA. *Suprà vol.* 4. *fol.* 286.

B. *grandiflora;* bracteis pedunculum floriferum subæquantibus: interiore minore, foliis serratis.
B. grandiflora. *Brown prodr.* 1.296.
Aletris punicea. *Lab. nov. holl.* 1. *p.* 85. *t.* 111 ?

Folia *rigida, erecta, lætè-viridia, utrinque striata, margine serrata.* Scapus *erectus, 2-3-pedalis, compressus, striatus, squamis rigidis acuminatis distantibus vestitus.* Racemus *cylindricus, multiflorus,* floribus *solitariis, pendulis, bracteatis : bracteis duabus pedunculi floriferi longitudine : exteriore ovata acuminata interiore ad minimum duplò minore. Post anthesius pedunculi multùm elongantur.* Perianthium *magnum, inflatum, rubro-aurantiacum, diu persistens, limbo 6-lobo: laciniis exterioribus ovatis obtusis; interioribus latioribus retusis.*

At folio 286 of this work, will be found a representation of the original Blandfordia, upon which the genus was instituted by Sir James Edward Smith. The species now before us is distinguished from that by the greater size of its flowers, by the colour of its leaves, which are bright yellowish-green, not glaucous, and distinctly serrated towards the extremity, while those of B. *nobilis* never acquire, even in old dried specimens, any division of their margin, beyond a slight and minute cracking. In this species the bracteæ are, during flowering, as long as the pedicels, but in B. nobilis they are at all periods much shorter.

The last-mentioned distinction is that upon which Mr. Brown founds his specific character of B. *grandiflora;* a circumstance which excites some doubts in our mind as

to the plant now figured being the same which that gentleman had before him. The difference in the margins of the leaves of this plant and of B. nobilis is so remarkable, that we are persuaded it could not have escaped the notice of so acute an observer as Mr. Brown unless the specimens examined by him, at the time of the publication of the *Prodromus*, were in an imperfect state. It is also worthy of attention, with reference to any question of the identity of this B. *grandiflora* and that of Mr. Brown, that the Aletris punicea of Labillardière, found at Van Dieman's Island, and figured in his 111th plate, the leaves of which are described as minutely crenulated, is quoted with doubt as a synonym of Mr. Brown's B. grandiflora. Labillardière's plant, indeed, if dependence can be placed upon the fidelity of either the figure or description given by its author, may be distinct from any described Blandfordia, the divisions of its perianthium being all ovate and acute, not alternately retuse and imbricated as in the species before us.

Our drawing of this superb liliaceous plant was made at Mr. Colvill's Nursery, in August. The plant was growing in the open border of a new conservatory, where it flowered in great beauty and profusion. We are informed that it had been raised from seeds collected in some part of New Holland by Mr. John Richardson; but Mr. Sweet tells us that he cultivated it several years ago, at Stockwell.

A hardy, greenhouse, herbaceous plant, with numerous, rigid, pale-green, ensiform leaves, striated on each side, and serrated at the edge. *Scape* growing to the height of two or three feet, compressed, striated, and clothed with a few distant rigid taper-pointed scales. *Raceme* cylindrical, many-flowered, with solitary, large, pendulous, inflated flowers, having at their base two opposite ovate acuminate bracts, as long as the peduncle of the flower, the inner bract being, at least, twice as small as the other. After the flowering is completed, the peduncles become much elongated. The *perianthium* is orange-red, very shewy, and remains in perfection for a long time; its limb is 6-lobed, the outer segments being ovate and obtuse, the inner broader and retuse.

J. L.

CASTILLEJA septentrionalis.

Labrador Castilleja.

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. SCROPHULARINEÆ.

CASTILLEJA L.—*Calyx* tubulosus compressus hinc fissus. *Corolla* tubulosa compressa bilabiata; labio superiore lineari canaliculato; inferiore brevissimo dentato. *Stamina* 4 didynama. *Stigma* capitatum. *Capsula* ovata compressa. *Semina* membrana reticulata laxa obtecta.——Herbæ, suffrutices, *aut* frutices. Folia *alterna integra aut trifida; floralia dissimilia, brateiformia colorata.* Flores *axillares solitarii aut terminales spicati.* Corollæ *albidæ aut virescentes.* Kunth synops. 2.99.

C. *septentrionalis;* annua, foliis caulinis lineari-lanceolatis: superioribus ovato-lanceolatis trinervibus cauleque striato glabris, spica paniculata, calyce bilabiato ($\frac{2}{3}$) corollâ breviore.

Bartsia pallida, *Mich. fl. am. sept.* 2. *p.* 17. *Pursh. fl. am. sept.* 2.429. *Nutt. genera* 2.56. *et auctorum omnium de Am. sept.*

Herba *annua, caule simplice suberecto striato glabro versùs apicem pilosiusculo.* Folia *radicalia vix ulla, caulina lanceolata glabra: superioribus latioribus trinervibus.* Spica *paniculata, bracteis pallidis purpuratis, imbricatis, oblongis, apice rotundatis 3-5 dentatis.* Flores *in axillis bractearum solitarii, sessiles, pallidè virides.* Calyx *compressus, tubulosus bilabiatus pilosus, labio superiore bifido, inferiore 3-partito.* Corolla *tubulosa tomentosa, labio superiore lineari erecto integro canaliculato, inferiore brevissimo tridentato glandulis nullis, sed fauce carnosâ in loco glandularum.* Antheræ *glabræ.*

A single individual of this exceedingly rare and very curious plant, sprang up from among some turfs imported from Labrador by the Horticultural Society, in whose garden at Chiswick our drawing was made, in July 1824. It perished soon afterwards, having shed its seed; but no traces of the plant have been discovered this season. It probably is scarcely capable of cultivation, except, as in the present instance, under accidental circumstances.

Although there appear to be no traces of glands in the mouth of the lip of this species, their place being supplied by a thickening of the orifice, we nevertheless concur

with Mr. Kunth in the propriety of removing it from Bartsia to Castilleja, notwithstanding the difference in the calyx of C. *integri-folia* and C. *fissa*, and of the plant before us. At least it can never be admitted into any genus of which *Bartsia Alpina* and *viscosa* form a part. It is curious that Mr. Nuttall, who divides Bartsia coccinea from Bartsia, for the purpose of making it into a particular genus which he calls Euchroma, should not have discovered that B. pallida was separable on the same grounds as the first species. Euchroma, however, can scarcely be divided from Castilleja.

Upon comparing the plant which grew in the Horticultural Society's garden, with wild specimens from Hudson's Bay and Labrador, in the Banksium Herbarium, we find that there is no difference whatever between them even in size. Not so, however, with the B. pallida of Siberia. Of this we possess fine specimens gathered in the Ural Mountains by one of Dr. Fischer's collectors; and we find it is quite distinct from the American plant. The principal part of the foliage is radical and extremely narrow, the whole plant is covered with dense tomentum, the spikes are in all cases unbranched, and the calyx is, especially upon the nerves, quite villous. In Castilleja septentrionalis scarcely any of the foliage is radical; the leaves are much broader, especially the upper ones, and there is scarcely any down upon the plant excepting a few weak hairs upon the upper part of the stem, the bracteæ, and calyx.

The Bartsia pallida of Siberia may therefore be thus characterised, and named:

Castilleja sibirica; annua? foliis radicalibus linearibus acuminatis: superioribus ovato-lanceolatis trinervibus cauleque tomentosis, spica simplice, calyce villoso bilabiato ($\frac{2}{3}$) corolla breviore.

Bartsia foliis lanceolatis indivisis, floralibus incisis. *Gmel. sib.* 3. *p.* 201. *t.* 42.
B. pallida. *L. sp. pl.* 839. *Willd. sp. pl.* 3.186.

C. septentrionalis is an annual plant, with a simple striated, smooth, nearly erect stem, a little hairy towards the end. Radical *leaves* scarcely any, cauline lanceolate smooth: the upper broader, 3-nerved. *Spike* panicled, with pale bracteæ, tinged with purple, imbricated, oblong, rounded, and 3 or 5-toothed at the end. *Flowers* solitary in the axilla of the bracts, sessile, pale green. *Calyx* compressed, tubular, two lipped, hairy; the upper lip bifid, lower 3-parted. *Corolla* tubular, compressed, downy; the upper lip linear, erect, entire, channelled; the lower very short, 3-toothed, without glands. J. L.

DISA grandiflora.

Large-flowered Disa.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDEÆ. Sect. 1. *Orchideæ veræ.*

DISA L. — *Perianthium* explanatum; laciniis exterioribus liberis: posticâ galeatâ 1-calcaratâ; interioribus nanis basi columnæ accretis. *Labellum* basi columnæ insertum liberum integrum. *Columna* utrinque alata: alis petaloideis. *Clinandrium* dilatatum anticè suprà stigma prominens trilobum: lobo intermedio inflexo. *Anthera* verticalis, loculis basi divaricatis solutis in clinandrio incumbentibus. *Glandulæ* nudæ. *Stigma* ad basin columnæ.——OBS. Disa cornuta *quæ clinandrio non dilatato et præsertim anthera horizontali differt, fortè genus proprium* Pterygodio *affine* (REPANDRAM) *indicat, cui species multæ aliæ spicatæ referendæ sunt.*

D. *grandiflora;* laciniis perianthii exterioribus maximis ovali-lanceolatis acuminatis, calcare conico nutante, caule subbifloro.

Disa uniflora. *Berg. cap.* 348. *t.* 4. *f.* 7.

Disa grandiflora. *Linn. suppl.* 406. *Swartz. act. holm.* 1800. *p.* 210. *Willd. sp. pl.* 4.45. *Pers. syn.* 2. 507. *Ker in Journ. sc. vol.* 4. *p.* 205. *tab.* 5. *f.* 1.

Satyrium grandiflorum. *Thunb. prodr.* 4.

Caulis *glaber, pedalis, foliosus, erectus.* Folia *lanceolata, acuminata, patentia, basi vaginantia, caulis longitudine, superiora sensim minora.* Flores *terminales,* 1-3, *maximi, speciosi.* Bracteæ *ovato-lanceolatæ, acuminatæ, nervosæ, ovarii longitudine.* Perianthium *explanatum, patens,* laciniis exterioribus *maximis, ovali-lanceolatis, acuminatis, lateralibus coccineis planis, superiore (galeâ) rubescente, venosâ, cucullatâ, suprà basin calcare brevi obtuso vix ipsâ galeâ longiore;* interioribus *minimis ovatis ad basin columnæ.* Labellum *anticum, lineare, acuminatum, laciniis exterioribus brevius.* Columna *erecta utrinque appendiculata:* appendicibus *ovalibus dimidiatis erectis cum antherâ parallelis, margine laterali replicato, dentato, et cum dorso columnæ basi adnato;* clinandrium *magnum dilatatum, anticè declive, carnosum, suprà stigma prominens, trilobum: lobo medio inflexo.* Anthera *terminalis, erecta, apiculata, in parte posteriore clinandrii inserta,* connectivo *carnoso rigido,* loculis *parallelis, basi divaricatis, solutis, in lobis lateralibus clinandrii incumbentibus.* Pollinia *gracilia, granulosa, sulcata: glandulis nudis.* Stigma *carnosum, concavum, ad basin columnæ.* Obs. *In æstivatione columna arcuatur et clinandrii* complicati *lobi laterales tali modo suprà stigma* invertuntur, *ut glandulæ polliniorum faciem stigmatis viscosam tangunt.*

For this truly splendid plant, which has now flowered, probably, for the first time in Europe, we are indebted to

Wm. Griffin, Esq., of South Lambeth, by whom it was received from the Cape of Good Hope. Our drawing was made in his hot-house, in June last.

It must be considered the type of the genus Disa, from which we believe it will be found necessary to separate D. *cornuta*, and several other species with spiked flowers, on account of their simple clinandrium and horizontal anthers, in the nature of which they approach the curious form of Pterygodium.

If the columna and stigma of this genus be examined when the flower is expanded, it seems impossible that any communication can take place between the pollen and the stigma, on account of the fleshy dilatation of the clinandrium which is interposed. But if the flower is dissected in an early state, it will then be found that the two lobes of this dilated process are folded together, and inverted over the stigma in such a manner, by the contraction of the columna, that the glands are applied immediately to the stigmatic surface. At this stage also of the flower, the grains of pollen, which eventually cohere in the form of an indefinite number of waxy, wedge-shaped bodies, are all separable by the aid of a little nitric acid, and appear to be in their greatest state of perfection.

A bulbous-rooted orchideous plant, of extremely difficult cultivation. It will probably succeed best in very fine sandy peat, never allowed to become saturated with moisture, and, during the period when the plant is at rest, kept quite dry. The *stem* is a foot high, clothed with spreading, lanceolate, acuminate leaves, sheathing at the base. The *flowers* grow two or three together, and are very large and showy; of the outer segments the two lower are oval-lanceolate, and bright crimson, the upper of a delicate pink colour, and furnished with a short conical spur behind. The two inner segments of the flower are very small, and placed at the base of the column; while their place in the flower seems to be supplied by two petal-like appendages adhering to the column on each side. The *labellum* is small, and linear-lanceolate.

J. L.

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J. L.

927

PANCRATIUM Carolinianum.

Carolina Pancratium.

HEXANDRIA *MONOGYNIA.*

Nat. ord. AMARYLLIDEÆ.
PANCRATIUM. Suprà vol. 3. fol. 221.

P. *Carolinianum;* multiflorum; foliis non infernè vaginantibus, antheris supinato-incumbentibus. *Ker. in Journ. sc. cum icone.*
Lilio-Narcissus polyanthus, flore albo. *Catesby Carolina,* 3. *p.* 5. *t.* 5.
Pancratium spatha multiflora, foliis linearibus, staminibus nectarii longitudine. *Mill. Dict. ed.* 7. *n.* 6.
Pancratium Carolinianum. *Linn. sp. pl. ed.* 2. 1.418. *Walter, fl. Carol.* 120. *Hort. Kew. ed.* 1. (not of *Salisbury in Hort. Trans.* 1.338.)
P. maritimum. *Pursh. amer. sept.* 1.222.

For the greater part of the synonyms cited above, we are indebted to an excellent monograph upon the genus Pancratium, printed some years since in the Journal of Science and Arts, from the pen of John Bellenden Ker, Esq. We are assured that the plant now published is the true P. *Carolinianum* of Linnæus, and distinct from *maritimum.* It certainly appears to agree perfectly with the figure in the Banksian Library, which Mr. Ker considered an authentic representation of the species, but we are unfortunately unable to add any thing to the information respecting the differences in these two plants, beyond what is afforded by our figure. The specimens reached us in a withered state, and at a time when we had not leisure to contrast the two species, P. *maritimum* and *Carolinianum* with each other. It may not be useless, however, to state what the opinions of various Botanists have been with respect to P. *Carolinianum.*

Willdenow, Sprengel, Sir James Smith, and others, consider it the same as P. *maritimum.* Mr. Salisbury sup-

poses Catesby's figure of his " Lilio-Narcissus flore albo," to be a bad representation of the plant called P. *rotatum,* by Mr. Ker, in the Botanical Magazine, t. 827, and consequently is of opinion that that plant is the true P. *Carolinianum.* To this view of the question Mr. Herbert seems favourable.

For ourselves, if we may venture to offer an opinion, we should incline to the belief that this is the true P. *Carolinianum,* and that it is different from the P. *maritimum* of Europe, figured at fol. 161 of this work. Catesby's figure may be almost any thing.

Our drawing was made last Autumn, from a specimen communicated by the late Honourable and Rev. George Herbert, from his garden at Burghclere.

J. L.

Pub. by J. Ridgway 169 Piccadilly

Weddell sc.

ACACIA sulcata.

Furrowed Needle-leaved Acacia..

POLYGAMIA *MONŒCIA.*

Nat. ord. Leguminosæ. Mimoseæ.
ACACIA. *Suprà vol. 2. fol.* 98.

Div. I. *Foliis simplicibus.*

A. *sulcata;* foliis filiformibus undique sulcatis: mucronulo innocuo, capitulis subgeminis; bracteis basis pedunculi ovatis concavis persistentibus, leguminibus flexuosis. *Brown in Hort. Kew.* 5.460.

Rami *glabri corrugati.* Folia *sæpiùs secunda, rigida.* Pedunculi *solitarii, foliis breviores.* Capituli *solitarii pisi minoris magnitudine, è quâque axillâ foliorum terminalium.*

A very rare species of Acacia, described in the fifth volume of the Hortus Kewensis, by Mr. Brown. It is a native of the South-west Coast of New Holland, whence it is stated to have been introduced in 1803, by Mr. Peter Good, who was employed as gardener in Captain Flinders's voyage. Our drawing was made in a Conservatory, in Mr. Colvill's Nursery, in June 1824.

For full directions respecting the cultivation of the very ornamental tribe of plants to which this belongs, we beg leave to refer the reader to the last edition of the Botanist's Cultivator.

A small heath-like shrub, with smooth, yellowish-brown wrinkled branches, densely covered with filiform rigid *leaves,* furrowed deeply from base to point. *Peduncles* solitary, shorter than leaves, each having at its base an ovate concave bract. *Heads* the size of a small pea, in the cultivated plant usually solitary, and proceeding from every axilla at the end of the branches.

J. L.

Note upon Amaryllis ignea. *Suprà vol.* 10. *fol.* 809.

We have recently had an opportunity of examining fresh flowers of this plant, which we, at the time we published it, had not seen in a perfect state. At that time, it was supposed that it might, at some future period, be found to constitute a genus distinct from any previously described, and the belief we then entertained is now confirmed. It differs from Amaryllis in having each of the stamens, which are opposite the outer divisions of the perianthium, furnished with two subulate processes, and from Chlidanthus, in having the stamens distinct, and inserted nearly at the base of the perianthium, and in the structure of this latter.

This genus may be called Phycella, and thus defined.

PHYCELLA.

Perianthium subringens, convoluto-clausum, 6-partitum. *Stamina* basi laciniarum inserta: *fertilia* 6, declinata, subæqualia; *sterilia* totidem subulata, basi filamentorum exteriorum adnata. *Stylus* filiformis. *Stigma* simplex. *Semina* ...... (membranacea?)

Sp. 1. P. *ignea*.

Amaryllis ignea. *Suprà vol.* 10. *fol.* 809.

Sp. 2ª. P. *cyrtanthoides*.

Amaryllis cyrtanthoides. *Bot. Mag.*

J. L.

929

AMOMUM maximum.

Tall Amomum.

MONANDRIA *MONOGYNIA.*

Nat. ord. SCITAMINEÆ.

AMOMUM L.—*Perianthium* limbo interiore unilabiato. *Anthera* cristata; crista lobata v. integra. *Capsula* 3-locularis, 3-valvis. *Semina* plurima arillata. *Embryo* simplex albuminosus et vitellosus. *Roxb. fl. ind. ex. Anglica vers.* paulò mutatis terminis.

A. *maximum;* foliis petiolatis lanceolatis subtùs villosis, spicis ovalibus epigæis, bracteis lanceolatis, labello elliptico, cristâ antheræ integrâ lunulatâ, capsulis rotundis enneapteris. *Roxb. l. c.*

Amomum maximum. *Smith in Rees. in supplemento. Römer et Schultes sp. pl.* 1.571. *Sprengel systema vegetabilium,* 1.11.

Radix ...... Culmus *erectus, glaber, vaginatus, basi bulbosus.* Folia *terminalia,* 2-3, *patentia,* $1\frac{1}{2}$ *pedalia, angusto-lanceolata, atro-viridia, concolora, suprà glabrà, sublucida, subtùs tomentosa.* Flores *in capitulo radicali ovali, scapo brevi, squamoso.* Bracteæ *lanceolatæ, ferrugineæ, perianthio appressæ, exterioris longitudine.* Perianthium exterius *tubulosus, infrà fissus, apice trilobus, sphacelatus, pallidè rubescens.* Perianthium interius *limbi exterioris laciniis* 3, *patentibus, subsecundis, oblongis, canaliculatis, obtusis, citrinis, sublobatis, membranaceis, in tubo brevi arcuato coadunatis;* labello *obovato, membranaceo, margine crispato crenato, subdiaphano, venoso, laciniis longiore, basi utrinque dentato.* Anthera *in labello incumbens, oblonga, apice reniformis, marginata:* loculis *approximatis, parallelis, in amplexu suo stylum foventibus.* Ovarium .... Stylus *filiformis, glaber; basi corpusculis duobus puberulis.* Stigma *obliquum, capitatum, infundibulare, compressum, margine oris ciliato.*

We were favoured with this plant, in flower, in June 1824, from the garden of his Grace the Duke of Northumberland, at Sion House, where it had been cultivated for several years. Its history had been lost.

The specimen was not in a healthy state, which may explain the cause of its not having arrived at the height which Amomum maximum attains in the East Indies. In the Malay Islands, of which it is a native, it reaches the stature of a tall man. It is proper to remark, that the plant now represented differs from Roxburgh's description, in not having the outer segments of the inner perianthium

vaulted on the labellum. But in A. maximum, Roxburgh does not seem to attach a high degree of importance to this circumstance; for he not only omits it in the specific character of that species, but inserts it in the definition of A. *dealbatum,* as if contrasting the permanence of the form in one species with the uncertainty of it in the other.

The seeds are said to possess a warm, pungent, aromatic taste, not unlike that of Cardamoms, but by no means so grateful.

Professor Sprengel, in his new edition of the Systema Vegetabilium has, in his translation of Roxburgh's specific character of this plant, mistaken the single lunar lobe of the filament, for three lunar lobes, answering to the pointed divisions of the filament, which are common in other species. He also calls the capsule 7-winged instead of 9-winged; but the latter is possibly an error of the press.

A tender stove plant, which may be cultivated in the same manner as others of its tribe. It is recommended by Mr. Sweet, in his Hothouse and Greenhouse Manual, "to be planted in rich, sandy soil, and to be grown in large pots, in a moist heat." Of this very useful book, we perceive that a second edition has been lately published, containing much new information, especially upon the treatment of those plants which are the most difficult to cultivate. We recommend this work to every lover of gardening.

Stem erect, smooth, covered by the persistent sheath of former leaves, bulbous at the base. *Leaves* terminal, 2-3, spreading, $1\frac{1}{2}$ foot long, narrow-lanceolate, dark green, of the same colour in every part, smooth, and somewhat shining above, downy beneath. *Flowers* in a radical oval head, with a short, scaly scape. *Bracteæ* lanceolate, ferruginous, pressed close to the perianthium, and as long as the outer. *Outer perianthium* tubular, split on its lower side, 3-lobed at end, withering, pale pink. *Inner perianthium* with the segments of its outer limb 3, spreading, somewhat on one side, oblong, channelled, obtuse, lemon-coloured, membranous, united into a short bowed tube; *labellum* obovate, membranous, curled and crenate at edge, somewhat diaphanous, veiny, longer than segments, with a tooth on each side at the base. *Anther* incumbent on the labellum, oblong, reniform, and edged at the end *Cells* close together, parallel, embracing the style by their union. *Style* filiform, smooth, with two downy corpuscles at its base. *Stigma* oblique, capitate, funnel-shaped, compressed, with the edge of the orifice ciliated. J. L.

RODRIGUEZIA secunda.

Side-flowered Rodriguezia.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDEÆ. Sect. *Epidendreæ.*

RODRIGUEZIA. Fl. Peruv. Perianthium tetraphyllum ringens: foliolis superioribus erectis; inferiore labello supposito. *Labellum* integrum anticum unguiculatum basi cornutum medio callosum: ungue columnâ parallelo. *Columna* teres apice barbata. *Anthera* unilocularis. *Pollinia* 2 posticè excavata filo elastico adhærentia. *Gynizus* lobatus.——Herbæ *epiphytæ.* (Americæ æquinoctialis.) Folia *carnosa avenia disticha vaginantia.* Spicæ *axillares secundæ.* Flores *speciosi.*

R. *secunda;* foliis oblongo-lanceolatis apice obliquis emarginatis basi laxis vaginantibus.

R. secunda. *Humboldt, Bonpl. et Kunth. nov. gen. et sp. pl.* 1 *p.* 367. *t.* 92. *synops.* 1.348.

R. lanceolata. *Bot. Cab.* 676.

Pleurothallis? coccinea. *Hooker, exot. flora,* 129.

Planta epiphyta, acaulis. Folia *disticha, basi vaginantia, decidua, patentia, ovali-lanceolata, complicata, enervia, apice obtusa, mucronulata, obliqua; superiùs basi incrassato, compresso, ancipite, corrugato, bulboideo.* Spicæ *axillares, multiflori, cernui, pedunculati, foliorum longitudine ante expansionem tritici spicam referentes.* Flores *pulchrè rosei, secundi.* Perianthium *4-partitum, ringens, laciniis superioribus ovalibus, conniventibus, inferiore cymbiformi, emarginato, labello supposito.* Labellum *liberum, unguiculatum;* ungue *faciei columnæ applicito, marginato, basi extùs carnoso, cornuto;* laminâ *cuneata, emarginata, obsoletè trinervi, medio carnosâ, basi callosâ, callo elevato marginato.* Columna *teres, clavata, pubescens, apice bidentata.* Clinandrium *nudum, retrorsùm declive, anticè pulvinatum.* Pollinia *duo, albida, cereacea, posticè excavata, filo communi elastico glandulæ affixa.* Anthera *unilocularis, carnosa, anticè truncata.* Gynizus *subquadratus, apertus, utrinque cornutus, apice demùm emarginatus.*

A beautiful parasitical orchideous plant, which was introduced about the year 1818, from Trinidad. It is more easily cultivated than the greater part of its tribe, growing freely, and flowering in abundance in a damp stove among rotten tan and decayed vegetable mould.

Whether this is the original species upon which the genus was founded by the authors of the Flora Peruviana, we dare not decide. There can be no doubt, however, that it is the same as the *R. secunda* of M. Kunth, and as that excellent Botanist considers his plant distinct from that of the Flora Peruviana, we have no hesitation in following him. It was found by Messrs. Humboldt and Bonpland in cool temperate places, in the neighbourhood of Carthagena, growing upon trunks of Crescentia Cujete, and flowering in October. It produces its beautiful spikes at the same time of the year in our stoves in great profusion. The labellum seems to be subject to some diversity of form and colouring in different individuals, but the differences are too inconstant to characterise even varieties. The spikes are usually nodding, as is elegantly represented in Dr. Hooker's Exotic Flora. Occasionally they are erect, as in the plant now figured, and as in that examined by M. Kunth.

The genus Gomeza of Mr. Brown is nearly allied to Rodriguezia, from which it is chiefly distinguished by its prominent stigma, by its 3-lobed labellum, and by the absence of any elongation from the base of the same part. The value of the latter character is, however, diminished by the consideration, that the slight elongation of the base of the labellum in Rodriguezia cannot properly be considered a spur, because it is solid, without any corresponding excavation between the labellum and columna.

The only other published genus with which it is necessary to compare Rodriguezia is Pleurothallis, which is essentially distinguished by the absence of an elastic filum bearing the pollen masses, by its axillary inflorescence, and by its solitary, or nearly solitary leaves, which neither sheath at the base, nor are seated on a bulbous base. It is necessary, however, to explain, that we consider the singular plant represented at fol. 759 of this work under the name of Pleurothallis punctata, and about the same time by Messrs. Loddiges, in their Botanical Cabinet, as a species of Gomeza (G. tenuiflora), to be essentially distinct from both those genera, from which it differs in several important particulars. Not to mention its radical inflorescence, which is a character of some value in distinguish-

ing many genera of Orchideæ, the labellum is not parallel with the columna in any portion of its length; the anther, instead of being terminal, as in nearly all the genera of true Epidendreæ, is placed at the back of the columna! exactly as in Neottieæ; there is a large projecting callus at the back of the point of the columna, to which we have seen nothing similar in this tribe of plants; and the columna is tapered off to a point, in which this plant again resembles Neottieæ; while the secreting stigmatic surface is not transverse with respect to the columna as in Epidendreæ, but perpendicular, and like a slit in the face of the columna, occupying half its length. This curious plant may be named

NOTYLIA.

Perianthium tetraphyllum explanatum: foliolis superioribus æqualibus distantibus; inferiore oblongo bilobo labello supposito. *Labellum* divaricatum integrum medio callosum. *Columna* libera teres acuminata. *Anthera* postica unilocularis cum stigmate parallela. *Pollinia* duo integra filo elastico glandulæ affixa. *Clinandrium* planum apice callosum, posticè marginatum. *Stigma:* rima antica verticalis.——Herbæ *epiphytæ* (Americæ æquinoctialis). Folia *solitaria nervosa stipitata.* Spicæ *radicales.* Obs. Huic affinis est *Cymbidium dependens* Lodd.; planta nimirùm structurâ in Orchideis inauditâ, et genus proprium (Cirrhæam Nob.) efformans.

Sp. 1. Notylia punctata.
Pleurothallis punctata. *Suprà fol.* 759.

Sp. 2. Notylia multiflora.
Pleurothallis sagittifera. *Humb. Bonpl. et Kunth. nov. gen. et sp. pl. 1.365. t. 91.*

A stemless, parasitical plant. *Leaves* distichous, sheathing at the base, deciduous, spreading, oval-lanceolate, folded together, nerveless, blunt at the end, mucronulate, and oblique; the upper one thickened at the base, compressed, two-edged, wrinkled, bulb-like. *Spikes* axillary, many-flowered, cernuous, stalked, the length of the leaves before expansion resembling a wheat-ear. *Flowers* bright rose-coloured, one-sided. *Perianthium* 4-parted, ringent; the upper segments oval, conniving, the lower boat-shaped, emarginate, and placed under the labellum. *Labellum* unguiculate, separate; the *claw* applied to the face of the columna, edged, at the base outside fleshy and cornute; the *lamina* cuneate, emarginate, obsoletely 3-nerved, fleshy in the middle, and bearing an elevated margined callus at the base. *Columna* round, clavate, downy, 2-toothed at end. *Clinandrium* sloping backwards, naked, elevated like a cushion in front. *Pollen-masses* 2, whitish, waxen, hollowed out behind, fixed to the common elastic filum of the gland. *Anther* 1-celled, fleshy, truncate in front. *Gynizus* nearly square, open, with a little inflexed horn on each side, finally becoming emarginate at tip. J. L.

M. Hart del. Pub. by J. Ridgway 169 Piccadilly Nov. 1. 1825

GONOLOBUS maritimus.

Sea-shore Gonolobus.

PENTANDRIA *MONOGYNIA.*

Nat. ord. Asclepiadeæ.
GONOLOBUS. Suprà vol. 3. fol. 252.

Div. *Floribus umbellatis; foliis pubescentibus.*

G. *maritimus;* hirsutus, foliis cordatis acuminatis subtùs incano-tomentosis, umbellis sessilibus, laciniis corollæ ovatis acutis (obtusis) hirsutis. *Sprengel. syst. vegetab.* 1.846.

Cynanchum maritimum. *Jacq. Amer. p.* 85. *t.* 56. *Linn. Mantissa,* 54. *Willd. sp.* 1.1255.

Gonolobus maritimus. *Brown in Act. Wern.* 1. *p.* 35. *Römer & Schultes, sp. pl.* 6.59.

Frutex *volubilis, hirsutus.* Caules *densè retrorsùm tomentosi, teretes.* Folia *tomentosa, cordata, acuminata, sinu aperto, petiolo longitudine laminæ.* Umbellæ *sessiles, pauciflora, interpetiolares, petiolo breviores.* Calyx *5-fidus, pubescens, laciniis ovatis, obtusis, patentibus.* Corolla *rotata, 5-partita, pubescens, dorso et margine viridiores, disco purpureo; laciniis ovatis, obtusis.* Corona *cyathiformis, viridis, 15-dentata; dentibus 5 sinubus corollæ oppositis majoribus, inflexis, ciliatis.* Pollinia *didyma, medio affixa.* Ovaria *duo.* Stylus *unicus, exsertus, filiformis.* Stigma *obscurè bilobum.*

An inelegant, twining, hairy, shrubby plant, found by Jacquin among bushes on the sea-shore of Tierra Bomba. In this country it requires to be cultivated in the stove, when it flowers in June and July.

Our drawing was made in Mr. Colvill's Nursery, who received it from the Caraccas. Specimens from the Carribbee Islands, collected by De Ponthieu, and preserved in the Banksian Herbarium, perfectly agree with our cultivated plant.

Stems round, densely downy backwards. *Leaves* downy, cordate, acuminate, with the recess of the base open; the

petiole as long as the leaf itself. *Umbels* sessile, few-flowered between the petioles, and shorter than they are. *Calyx* 5-cleft, downy, with ovate, blunt, spreading segments. *Corolla* rotate, 5-parted, downy, green at the back and edge, purple in the middle; with ovate, blunt segments. *Crown* cup-shaped, green, with 15 teeth, of which the 5 opposite the recesses of the corolla are the largest, inflected, and ciliated. The *Pollen-masses* are twin, and attached by their middle. *Ovaries* two. *Style* single, exserted, filiform. *Stigma* obscurely 2-lobed.

The most recent enumeration of this genus comprehends 25 species, all of which are American, and 19 of them intratropical.

J. L.

Nov 1 1825

CALATHEA flavescens.

Yellow Calathea.

MONANDRIA *MONOGYNIA*.

Nat. ord. CANNEÆ. *Br.*

CALATHEA. Meyer. Perianthium exterius 3-phyllum; *interius* limbo utroque tripartito: exterioris laciniis canaliculatis; interioris anticâ et unâ è lateralibus dilatatis petaloideis: alterâ laterali cucullatâ difformi. *Filamentum* simplex. *Stylus* rectus, apice abruptè reflexus. *Stigma* obliquum excavatum integrum v. lobatum. *Ovarium* triloculare 3-spermum.——Inflorescentia *capitata.* Obs. *Huc referenda* Maranta Zebrina *fol.* 385. *hujus operis, et procul dubio* M. Allouya. MARANTA, *limitibus propriis circumscripta, differt, stylo circinato, filamento bilobo: lobo fertili integro, sterili petaloideo sæpiùs deformi, inflorescentia paniculata, et floribus nudis, nec bracteis obvallatis.*

C. *flavescens;* acaulis, foliis oblongis, acuminatis, penninerviis, petiolatis glaberrimis, concoloribus, subtùs glaucis, capitulo sessili, ovato, multifloro, laciniis limbi interioris obovatis, oppositis emarginatis.

Folia *erecto-patentia, oblonga, acuta, argutè penninervia, plana, glaberrima, subtùs glauca, petiolis erectis, alatis, vaginantibus ad basin folii, geniculatis, teretibus.* Capitulum *sessile è basi foliorum inferiorum, flores* 5-6 *citrinos de die in die promens.* Bracteæ *acutæ, rigidissimæ, tubi perianthii longitudine.* Perianthium exteriùs *triphyllum; foliolis lineari-lanceolatis, acuminatis, convolutis, membranaceis.* Tubus *gracilis, clavatus, arcuatus, perianthio exteriore longior.* Per. interioris *limbus exterior* 3-*partitus: laciniis patentibus, lanceolatis, concavis; interior* 3-*phyllus: laciniis* 2 *magnis oppositis, patentibus, obovatis, emarginatis; alterâ parvâ, deformi, apice cucullata, hinc cornutâ, stylum et stigma involvente.* Filamentum *stylo connatum, lobo sterili ferè obliterato integerrimo.* Anthera *unilocularis, marginalis, lobo sterili altior.* Stylus *teres, rectus, apice horizontaliter rostratus.* Stigma *concavum, marginatum, integrum.* Ovarium *triloculare, trispermum.*

This beautiful plant was sent in 1822, by the late Mr. John Forbes, from Rio Janeiro, to the Horticultural Society. Our drawing was made in the Society's Garden in August 1824. The plant requires the heat of the stove, and the treatment applied to scitamineous plants.

The genus Calathea was founded by Dr. Meyer in his *Primitiæ Floræ Essequeboensis*, upon the Maranta Cassupo of Jacquin. It was probably described after an examination of dried specimens, which may account for the character given by the founder of it not being so complete as could have been desired. The original species has not fallen under our observation, but we presume that the genus was designed to comprehend all the plants previously referred to Maranta, which have not a circinate style and naked flowers. We have, therefore, reformed the generic character, from an attentive examination of the plant now before the reader, M. *Zebrina* of the Gardens, and a new species from Brazil, which we propose soon to publish in this work under the name of *Calathea violacea*. Sprengel refers *Maranta Cachibou* of Jacq., and *M. juncea* of Lamarck, neither of which we have seen, to the genus; but he retains in Maranta the *Allouya* of Jacquin, which surely is, as far as can be judged from Jacquin's figure and description, a genuine species of Calathea.

Canneæ have been separated by Mr. Brown, as a distinct order from Scitamineæ, on account of the single cell of their anthers, and the absence of vitellus from their seeds; and the separation is confirmed by nature, who has given to Canneæ none of the aromatic properties, so characteristic of true Scitamineæ. But there is another point of difference between these two orders, to which we believe that no allusion has hitherto been made, and which appears to us to be of at least as great importance as those by which this division has been already effected; inasmuch as it consists in a diversity of structure upon which the respective affinities of the two orders with Orchideæ will be found to depend. In true Scitamineæ, as has been observed by Mr. Brown, the stamen is always placed opposite to the labellum, or anterior division of the inner series of the perianthium, and proceeds from the base of the posterior outer division of the perianthium; while the sterile stamens, when they exist, are stationed right and left of the labellum. But what we find remarkable in Canneæ is, that the place of one of the sterile stamens of Scitamineæ is taken by their fertile stamen, which is therefore no longer opposite the labellum, but stands on one side of it. This peculiarity of

arrangement seems to indicate a higher degree of irregularity in Canneæ than in Scitamineæ, which also extends to the other parts of their flower. The suppression of parts takes place in the latter in a symmetrical manner; the two posterior divisions of the inner series of the perianthium, which are occasionally absent, corresponding with the abortion of the two anterior stamens. In Canneæ, on the contrary, the suppression of organs takes place with so much irregularity, that the relation is not always obvious, which the various parts bear to each other. The station of the fertile stamen in Scitamineæ, and the regularity of structure in their flowers, may therefore be considered an evidence of the more intimate relation of that order than of Canneæ with Orchideæ, and as a confirmation of the propriety of retaining Canneæ as a distinct natural order, and not a mere section of Scitamineæ, as it appears to be still considered by many of the most eminent continental Botanists.

J. L.

WRIGHTIA tinctoria.

Dyer's Wrightia.

PENTANDRIA *MONOGYNIA.*

Nat. ord. Apocyneæ.

WRIGHTIA R. Br. *Corolla* hypocrateriformis. *Faux* coronata squamis 10 divisis. *Stamina* exserta. *Filamenta* fauce inserta. *Antheræ* sagittatæ, medio stigmati cohærentes. *Ovaria* duo cohærentia. *Stylus* filiformis apice dilatato. *Stigma* angustius. *Squamæ* 5-10, basi calycis extrà corollam insertæ, nullæ hypogynæ. *Folliculi* distincti v. cohærentes, placentis adnatis. *Brown in act. Wern.* 1. *p.* 73.

W. *tinctoria ;* foliis elliptico-lanceolatis ovatisque acuminatis glabris, ramis corymbisque divaricatis, corollæ tubo calyce duplo longiore, folliculis distinctis. *Brown l. c. p.* 75.

Nerium tinctorium. *Roxb. hort. beng.* 19.

Caulis *subvolubilis, frutescens.* Folia *opposita, subsessilia, ovato-lanceolata, acuminata, membranacea, utrinque glaberrima, suprà viridia opaca, subtùs pallidiora venis prominentibus reticulata.* Cymi *axillares, pauciflori, trichotomi, glaberrimi.* Pedicelli *virides, teretes, graciles.* Bracteæ *subulatæ.* Sepala 5, *ovata, transversè corrugata, gibbosa.* Squamulæ *inter calycem et corollam minimæ subulatæ.* Corolla *alba, glabra, hypocrateriformis, tubo laciniis duplo breviore : Limbus* patens, 5-*partitus, laciniis linearibus, suprà pubescentibus, ad apicem incurvulis, ad basin appendicibus totidem fimbriatis per processus breviores filiformes connexis coronam formantibus.* Tubus *carnosus, intùs mellifluus, basibus filamentorum gibbosis pubescentibus semiclausus.* Stamina 5, *laciniis alterna, ore inserta.* Filamenta *brevia, linearia, incurva.* Antheræ *subulatæ, acuminatæ, in cono conniventes, laciniis corollæ multò breviores, basi sagittatæ, dorso subpubescentes, apice ciliato stigmati fusiformi medio annulato adhærente.* Ovarium *glabrum, ovatum.* Stylus *filiformis.* Squamæ *hypogynæ nullæ.*

For the opportunity of making a drawing of this very rare plant, we are indebted to the Horticultural Society, to whom it had been presented in 1824 by the Court of Directors of the Honourable East India Company. It flowered in June in the stove, where it requires considerable heat.

This has been compared with authentic specimens of Nerium tinctorium of Roxburgh, communicated from the Botanic Garden, Calcutta, by Dr. Wallich, and found to agree with them in all respects.

Stem shrubby, somewhat twining. *Leaves* opposite, subsessile, ovato-lanceolate, acuminate, membranous, smooth on each side, green and opaque above, paler beneath, and netted with projecting veins. *Cymes* axillary, few-flowered, trichotomous, quite smooth. *Pedicels* round, green, slender. *Bracts* subulate. *Sepals* 5, ovate, transversely wrinkled, gibbous. *Scales* between the calyx and corolla very minute, subulate. *Corolla* white, smooth, hypocrateriform; *tube* twice as short as limb; *limb* spreading, 5-parted; segments linear, downy above, incurved at end, at the base having as many fringed appendages connected by shorter filiform processes and forming a corona; *tube* fleshy, honey bearing inside, half closed by the gibbous downy bases of the filaments. *Stamens* 5, alternate with the segments, inserted in the orifice. *Filaments* short, linear, incurved. *Anthers* subulate, acuminate, conniving in a cone much shorter than the segments of the corolla, sagittate at base, somewhat downy at back, and adhering by the ciliated end to the fusiform stigma, which has a ring in its middle. *Ovary* smooth, ovate. *Style* filiform. Hypogynous scales none.

J. L.

MARTYNIA lutea.

Yellow Martynia.

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. PEDALINÆ. *R. Br. prodr. nov. Holl.* 1.319. (Bignoniarum sect. III. *Juss.* s. Sesamearum *Kunth.* pars.)

MARTYNIA L.—*Calyx* pentaphyllus inæqualis. *Corolla* ventricosa: limbo 5-lobo subæquali. *Filamentum* quintum sterile. *Ovarium* uniloculare; placentis duabus parietalibus bilobis oligospermis. *Stigma* bilobum. *Capsula* lignosa birostris, apice bivalvis, pseudo 4-locularis, seminibus pendulis.

M. *lutea;* foliis cordato-orbiculatis dentatis cum caule glanduloso pubescentibus, rostris pericarpio multò longioribus.

Caulis *annua,* 1½ *pedalis, pallidus, teres, undique pilis glandulosis, brevibus, confertissimis diaphanis viscosus.* Folia *opposita, longè petiolata, patentia, horizontalia, orbiculata, basì cordata, lobis imbricatis, obtusa, denticulata, mollia, glanduloso-pubescentia, 5-7-nervia; petiolis teretibus, glanduloso-pubescentibus, versùs apicem attenuatis, folio longioribus.* Racemus *terminalis, erectus, pauciflorus, confertus, foliis vix altior.* Flores *undique glanduloso-pilosi.* Pedicelli *erecti, basi bracteâ deciduâ, lineari, pallidâ suffulti.* Calyx *magnus, pallidus, bracteis duâbus conformibus concoloribus oblongis lateralibus involucratus, 5-phyllus; sepalis exterioribus oblongis planis, lateralibus majoribus ½-dimidiatis, interioribus lineari lanceolatis obtusis paulò brevioribus.* Corolla *magna infundibularis, extùs piloso-glandulosa viridi-lutea, intùs glabra aurantiaca, tubo constricto, fauce ventricosâ obliquâ intùs sanguineo pulcherrimè punctatâ, limbo patente 5-partito, lobis rotundatis subimbricatis: sinubus protrusis; duobus superioribus minoribus basi glandulosis, inferiore multò majore reniformi undulato (sæpiùs ter).* Stamina 4 *didynama rudimento* 5[i]. Filamenta *crassa, purpureo fasciata, versùs parietem superiorem faucis arcuata, tubo breviora.* Antheræ *in crucem cohærentes, glabræ: connectivo luteo, carnoso, diaphano, subundulato, valvulis discretis bilocularibus prominentibus.* Pollen *album sphæricum liberum majusculum.* Ovarium *ovatum, dorso carinatum, in stipite brevi lutescente annulari insidens, glabrum, 1-loculare, polyspermum, placentis duâbus bilobis parietalibus, lobis stigmatis alternis, ovula horizontalia gerentibus.* Stylus *filiformis rectus glaber.* Stigma *bilobum lobis magnis foliaceis demùm recurvis, anteriore majore, utroque uninervi.* Capsula *lignosa, cymbiformis, aculeata, dorso cristata, cristâ bipartibili lacerâ, apice bicornis: cornubus biuncialibus, teretibus, inermibus, sursùm arcuatis; semi-bivalvis, unilocularis, pseudo 4 locularis: placentis quatuor lignosis septiformibus utrinque parietibus pericarpii appressis.* Semina *cuique placentæ* 2 *v.* 3,

pendula, magna, plumbea nitore metallico, compressa, rugosa, ad hilum gibbosa; testa exterior *crassa suberoso-coriacea, fibrosa,* interior *coriacea, alba, apice depressa hinc spilo discolore et funiculo tenui atriore testæ exteriori quasi affixa, basi lutea funiculo albo diaphano ad hilum verso.* Embryo *ovatus albus crassus compressus carnosus;* cotyledones *integræ, apice obtusissimæ, basi leviter sagittatæ;* radicula *depresso-conica, crassa, hilo proxima.*

For this handsome annual species of Martynia, we are indebted to the Honourable and Reverend William Herbert, who communicated specimens in flower in August last, and by whom it was raised from seeds received from the Brazils. It probably requires the treatment applicable to other half-tender annuals.

The station to be assigned to Martynia, in a natural arrangement, has been fixed by the illustrious de Jussieu in the 3d section of his Bignoniæ, and it has been suffered to remain in nearly the same place, by succeeding Botanists. To this arrangement, it may be perhaps considered that there is no material objection to offer; but there are some points connected with the structure of Martynia, to which it is our wish to call attention, whether they be considered confirmatory of its present station or not. In the first place, its capsule has been, we believe always, described as 4-locular; a character which Martynia has been supposed to possess in common with certain undoubted Bignoniaceæ, rightly, however, designated as pseudo-4-locular, by Mr. Brown. But upon a careful examination of the ovarium, it will be found that the fruit, in that stage, is neither 4-celled, nor even 2-celled, but consists of only one cell, traversed by two projecting, parietal placentæ, each of which is two-lobed; the lobes dividing at right angles, from their point of separation, and bearing on their edges a few horizontal ovula, of which part project into the open centre of the ovarium, and the others into the cavity between the placenta and the lining of the ovarium. Now the capsule differs from the ovarium in no essential point of structure; but the following changes take place: the pericarpium and the placentas become woody and rigid; the inner faces of the latter become pressed together, so as to destroy the ovula which were placed between them, and to exhibit the appearance of a bilamellar dissepiment, and the remaining ovula become pendulous, and reduced

in number, and exist in the form of large apterous seeds between the inner edge of the lateral lobes of the placenta and the endocarpium.

From the 2d section of Jussieu's Bignoniæ, or what are now considered genuine Bignoniaceæ, Martynia is therefore distinguished by its unilocular ovarium: it also differs in the definite number of its seeds, which have a woody testa, and no wing; in its nearly indehiscent fruit; and in the cohesion of its anthers; and in the compound, not simple, nature of its calyx. Of the value of the first point of difference, which we do not consider material, we shall have more room to speak when we come to Eccremocarpus, fol. 939. To the others, we are disposed to attach a higher degree of importance. In fact, they indicate a greater affinity between Pedalinæ and Martynia, than Bignoniaceæ. The former order, which was first proposed by Mr. Brown, excludes Martynia, chiefly on account of the seeds of the latter being more than one or two; but this circumstance is of much less importance than the union of other characters by which it could be included. The texture of the capsule, the testa and form of the seeds, and even the position of the latter, which, although erect in Josephinia, are pendulous in Pedalium, are the same in Martynia and Pedalinæ. To the latter order, slightly modified, we would, therefore, refer Martynia.

We observe, that Pedalinæ are reduced to Bignoniaceæ, by our friend M. Kunth, but in that opinion we cannot coincide. See fol. 939.

J. L.

STELIS ophioglossoides.

Narrow-leaved Stelis.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDEÆ : *tribus* Malaxideæ. *Lindl. Coll. Bot. ined.*

STELIS Swartz. Pollinia 2 cereacea integerrima; v. omninò libera, v. apicibus viscidis cohærentia, caudiculâ glandulâque nullis. *Anthera* terminalis opercularis 1-locularis decidua. *Stigma* subrotundum excavatum: rostello apiculato. *Columna* semiteres mutica. *Labellum* parvum sepalis interioribus nanis liberis subconforme. *Sepala* conniventia: exteriora basibus connata.——Herbæ *teneres, epiphytæ,* (Americæ æquinoctialis) *non bulbosæ.* Folia *solitaria.* Racemi *subsimplices.* Flores *minuti, herbacei, inodori et quandoque nocturni.*

S. *ophioglossoides;* foliis tenuibus lanceolatis apice sæpiùs recurvis, spicis laxis, floribus cernuis quaquaversis obsoletè hexagonis, sepalis interioribus truncatis, labello basi subcordato.

Epidendrum ophioglossoides. *Jacquin Amer.* 225. *t.* 133. *f.* 2.

Epidendrum trigoniflorum. *Swartz prodr.* 135.

Dendrobium ophioglossoides. *Swartz nov. act. ups.* 6. 83.

Stelis ophioglossoides. *Swartz in Schrad. diar. bot.* 1799. *p.* 239. *Willd. sp.* 4. 138. *Lodd. bot. cab. t.* 442.

Folia *solitaria, oblonga, glabra, plana, enervia, apice ferè integra, in petiolo carnoso, canaliculato attenuata.* Spica *terminalis, filiformis, multiflora, folio longior, vaginis parvis, truncatis, acuminatis interruptè vestita.* Flores *vespertini, minutissimi, resupinati, subsecundi, subrotundi, angulis 6 obsoletis.* Perianthium *subglobosum;* sepala exteriora, *ovata, obtusa, coriacea, basi connata, sub-fornicata, æqualia,* interiora *nana, carnosa, truncata.* Labellum *carnosum, cum columnâ parallelum, sepalis interioribus subconforme, laminâ depressâ, cordatâ.* Columna *brevissima semi-teres, sepalorum interiorum longitudine.* Anthera *terminalis, opercularis, unilocularis, decidua.* Pollinia 2, *libera, caudiculâ nullâ.*

A native of Trinidad, whence plants were sent by Mr. D. Lockhart to Mr. James Colvill, in whose nursery our drawing was made. A tender stove plant, requiring the treatment of other epiphytal Orchideæ.

We find much difficulty in ascertaining the true characters by which *S. ophioglossoides* and *micrantha* are to be

distinguished from each other; the points noticed by Swartz appearing to be altogether inapplicable. To this species, which we have compared with authentic specimens from himself in the Banksian Herbarium, he attributes triangular flowers, while, in fact, they possess that character in a much less degree than S. micrantha, to which he assigns hexangular flowers. The latter species, elegantly figured by Dr. Hooker in his Exotic Flora, differs from the subject of this article in having a rigid obtuse leaf, and a compact raceme of nodding flowers, which, when closed, present a distinctly triangular appearance. In all which characters it is opposed to S. ophioglossoides. The leaves of the latter are more membranous, and are almost always recurved at the end, where they are sometimes toothed; the flowers are larger and less compactly arranged in the spike; there is also a difference in the form of the inner floral segments and labellum. S. micrantha would therefore be more satisfactorily characterised thus:

S. *micrantha* (Swz.), foliis oblongo-lanceolatis obtusis coriaceis, floribus nutantibus secundis trigonis, sepalis interioribus apiculatis labelli conformibus.

Of S. ophioglossoides we possess native specimens from St. Vincents, communicated to us by our friend Dr. Hooker; they in no essential point differ from the plants in our gardens.

Leaves solitary, oblong, smooth, flat, nerveless, nearly entire at the end, narrowed into a channelled fleshy stalk. *Raceme* terminal, filiform, many-flowered, longer than the leaf, dotted at intervals with small truncate acuminate vaginæ. *Flowers* very minute, resupinate, somewhat on one side, roundish, with 6 obsolete angles. *Perianth*, with the outer sepals, ovate, obtuse, coriaceous, connate, and somewhat fornicate at the base, equal; inner, dwarf, fleshy, and truncated. *Lip* fleshy, parallel with the column, nearly of the same form as the inner sepals, with a depressed cordate lamina. *Column* very short, half-round, the length of the inner sepals. *Anther* terminal, opercular, 1-celled, deciduous. *Pollen-masses* 2, loose, with no caudicula.

J. L.

way 169 Piccadilly Dec 1

KNOWLTONIA vesicatoria.

Blistering Knowltonia.

POLYANDRIA *POLYGYNIA.*

Nat. ord. Ranunculaceæ: *tribus* Anemoneæ. *Dec. regn. veg.* 1.129. *KNOWLTONIA Salisb.* (Thebesia *Neck?* Anamenia *Vent.*) *Calyx* 5-sepalus. *Petala* 5-15, ungue nudo. *Stamina* 00. *Ovaria* 00 receptaculo globoso imposita. *Cariopsides* 00 monospermæ baccatæ, stylo deciduo muticæ. *Dec. l. c. p.* 218.

K. *vesicatoria;* foliis biternatim sectis, segmentis subcordatis rigidis glabriusculis, lateralibus basi obliquè truncatis, umbella subsimplici pauciflora. *Dec. l. c.*
Ranunculus perelegans D. Franqueville foliis aculeatis. *Lob. st. ill.* 135.
Astrantia africana laserpitii foliis latioribus rigidis et spinosis. *Morison hist.* 3 *p.* 279.
Imperatoria ranunculoides africana enneaphyllos laserpitii lobatis foliis rigidis margine spinosis. *Pluk. alm.* 198. *t.* 95. *f.* 2.
Adonis vesicatoria. *Linn. suppl.* 272. *Ait. Kew. ed.* 1. 2.264. *Willd. sp. pl.* 2.1307.
Adonis capensis. *Lam. dict.* 1. *p.* 46.
Knowltonia vesicatoria. *Bot. mag. t.* 775. *Ait. Kew. ed.* 2. 3.351.
Anamenia laserpitiifolia. *Vet. malm.* 1. *p.* 22. *in obs. Willd. enum.* 586.
Anamenia vesicatoria. *Dum. cours. bot. cult.* 4.438.
Adonis laserpitiifolia. *Pers. suppl.* 1.147.

M. De Candolle remarks, that this genus is just intermediate between Hydrastis and Adonis, with the former of which it agrees in fruit, and with the latter in flowers. It was named after Mr. Thomas Knowlton, formerly curator of Sherard's famous garden at Eltham.

It is curious that this, which has altogether the appearance of an umbelliferous plant, should have been referred by Lobel to Ranunculus, a nearly allied genus, but to which it bears little resemblance, at a time when the affinities of plants had scarcely been considered. Morison

and Plukenet, afterwards, as might have been expected, referred it to Umbelliferæ.

A hardy greenhouse, evergreen, herbaceous plant, with little beauty. It may be cultivated without any care in a sandy loam, and flowers in the winter months.

The acridity of the leaves is such as to cause violent inflammation and cutaneous swelling upon their application, whence the specific name of the plant.

J. L.

937

BANISTERIA laurifolia.

Laurel-leaved Banisteria.

DECANDRIA *TRIGYNIA.*

Nat. ord. MALPIGHIACEÆ: *tribus* 3. Banisterieæ *Dec.*

BANISTERIA L.—*Calyx* 5-partitus extùs ad basin 8-10-glandulosus. *Petala* unguiculata, subrotunda. *Stamina* 10, filamentis subulatis basi cohærentibus. *Styli* 3, apice sæpiùs in foliola explanati! *Carpella* indehiscentia 3, 1-sperma subdistincta demùm separabilia, desinentia in alam simplicem, membranaceam, ad latus superiùs incrassatum. *Semen* 1 pendulum in quoque loculo. *Cotyledones* crassæ, inæquales. *Radicula* supera ad hilum versa.——Arbores frutices-ve *sæpè scandentes.* Dec. prodr. 1.587.

DIV. III. *Foliis ovatis oblongisve.*

B. *laurifolia;* foliis ovato-oblongis acutis subcoriaceis glabris, petiolis eglandulosis, racemis paniculatis terminalibus ferrugineo-tomentosis, stigmatibus dimidiatis. *Dec. l. c. p.* 589.

Acer scandens foliis laurinis. *Sloane jam.* 137, *hist.* 2. *p.* 26. *Raii dendr.* 94.

B. laurifolia. *Linn. sp. pl.* 611. *Swartz. obs.* 182. *Willd. sp. pl.* 2.740. *Ait. Kew. ed.* 2. 3.106. *Spreng. syst. veg.* 2.387.

We are not aware of the place from which this drawing was obtained.

The plant has long been cultivated in the stoves of this country, having been sent to Miller, from Carthagena, by Dr. Houstoun, before the year 1733. It very rarely produces its flowers in this country, which is probably the cause of its not having been previously represented in any Botanical publication. The specimen from which the drawing was made appears to have been in a weak state, the flowers usually forming, in the West Indies, a small branched panicle.

M. De Candolle seems to consider this a doubtful species of Banisteria, and questions whether it may not rather be an Heteropteris, a genus divided by M. Kunth from Banisteria, on account of the wing of the pericarpium being thickened at the base, and not at the apex.

J. L.

a
b

HIBISCUS ficulneoides.

Dwarf Yellow Hibiscus.

MONADELPHIA *POLYANDRIA.*

Nat. ord. MALVACEÆ.
HIBISCUS.—Suprà vol. 10. *fol.* 860.

Sect. III. Manihot. *Carpella seu capsulæ loculamenta polysperma. Semina glabra. Involucella* 4-6 *phylla. Calyx spathaceus* 5 *dentatus longitudinaliter ruptus.* Dec. prodr. 1.448.

H. *ficulneoides,* caule fruticoso inermi, foliis cordato-ovatis obtusis grossè dentatis integris trilobisve involucelloque pubescentibus.

Althæa indica Hederæ terrestris ferè foliis flore purpureo magno. *Plukenet amalth. p.* 11. *t.* 355. *f.* 4.??

Specimens of this plant were communicated to us in April 1819, by the Honourable and Rev. W. Herbert, from his stove at Spofforth, with the following note:

"From the Mauritius and the East Indies. Leaves various, some entire, some 3-lobed. A very dwarf, perennial shrub. It will flower at the height of six inches, and an old plant seldom much exceeds a foot. It requires a very small pot, and if placed on a hot flue, will flower throughout the year, abundantly in winter. It will thrive with a degree of heat to the root which would scorch the hand, and perhaps grows naturally in the crevices of rocks which become very hot. I have found no other plant able to bear the heat it will endure under the root. I have had seed of it, frequently, without name, from different quarters, once from Calcutta, under the name of H. Ficulneus. It has, however, no resemblance to the Ficulneus of Cavanilles, nor, indeed, to any Hibiscus figured by Cavanilles. In the form of the flowers it a little resembles that of H. pedunculatus of the Bot. Reg., but the flowers expand rather wider than those of pedunculatus in that engraving. The whole plant is downy. The colour of the petals is a deep primrose colour, with a small purple spot

at the base of each. The specimen represented is nearly one-third of a plant four years old which has been in constant blossom."

We cannot trace this species among any recorded in the works to which we have access. There can be little doubt of its belonging to the Manihot section of M. De Candolle, and, perhaps, it is most nearly related to his *H. Pseudo Manihot*, found by Bory de St. Vincent in grassy meadows on the borders of the river St. Denis, in the island of Bourbon; but that species is said to have 3-fid long-pointed leaves, and an hispid involucrum. To the *H. Borbonicus* described by Link in his Enumeration of the Berlin Garden, it also appears to have considerable resemblance, especially in the form of the leaves; it is, however, obviously distinguished from that species by the small size of its flowers, and of the leaves of the involucre, which are an inch long in *H. Borbonicus*. To *H. obtusifolius* of Willdenow, it seems to have some resemblance; but that is an annual, and is otherwise distinct. *H. ficulneus* has prickly stems and palmate leaves.

The unappropriated figure which we have ventured to cite from Plukenet is so similar to this plant, that we cannot persuade ourselves of its not being intended for a representation of it, notwithstanding the purple flower which is attributed to that plant by the author.

J. L.

ERRATUM.

Fol. 930, third page, line 21, *for* affinis, *read* affine.

939

Piccadilly

ECCREMOCARPUS scaber.

Rough-fruited Eccremocarpus.

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. Bignoniaceæ.

ECCREMOCARPUS. Fl. Per. Calyx campanulatus semiquinque-partitus persistens. *Corolla* tubulosa: ore constricto; limbo 5-lobo. *Stamina* inclusa subregularia; rudimento quinti glabro. *Antheræ* liberæ carnosæ, glandulosæ. *Ovarium* superum 1-loculare. *Stigma* bilamellatum æquale. *Capsula* supera 1-locularis bivalvis polysperma: placentis parietalibus. *Semina* membranaceo-alata imbricata. *Albumen* nullum. *Cotyledones* integerrimæ.

E. *scaber*, scandens, cirrhifer, foliis pinnatis bijugis, foliolis obliquè cordatis serratis. *Sprengel. syst. veg.* 2.836.

E. scaber *Fl. Peruv. prodr. p.* 90. *syst. veg. p.* 157. *Pers. syn.* 2.173.

Caulis *in horto sub dio herbaceus 6-pedalis scandens, tetragonus, sulcatus, glaber.* Folia *opposita, exstipulata 3-pinnata, petiolo angulato subpubescente, cirrho terminali sulcato ramoso:* foliolis *carnosiusculis, ovatis v. cordatis, integris v. 2-3-lobis, lobis ovatis obtusis.* Racemi *horizontales, oppositifolii, laxi, multiflori* (8-9). Pedicelli *solitarii,* $1\frac{1}{2}$*-unciam longi, glanduloso-pubescentes, ut etiam rachis.* Bracteæ *breves subulatæ.* Calyx *purpureo-viridis, campanulatus, semi-5-partitus, æqualis, extùs glanduloso-pilosus: laciniis ovatis acutis patentibus.* Corolla *basi mellifera, calyce triplò longior, tubulosa, dorso plano, ventre inflato, versùs basin constricto, foveis quinque pro receptione laciniarum calycis: tubo lætè coccineo, præsertim versùs basin, undique glanduloso-pubescens, ore constricto, limbo brevi patente aurantiaco obsoletè 5-lobato.* Stamina *ad summum constrictionis inferioris corollæ inserta, quatuor fertilia, rudimento brevi quinti, tubo breviora, et ad ejus dorsum appressa.* Filamenta *filiformia, glabra.* Antheræ *liberæ,* connectivo *magno, carnoso, glanduloso-papilloso, altè bilobo, in marginem anteriorem gerente loculos parallelos, approximatos, apice connatos, polline quàm maximè repletos.* Pollen *minutissimum ovale.* Ovarium *superum, ovatum, papillosum, viride, in disco magno, carnoso, albido, annulari insidens, uniloculare, placentis 2 carnosis parietalibus polyspermis.* Stylus *staminum longitudine, cum ovario articulatus, rectus, rigidus, filiformis.* Stigma *luteum, carnosum, bilamellatum, æquale.* Capsula *nucis avellanæ majoris magnitudine, papyracea, ovata, compressa, in pedicello spurio attenuata, et reliquiis calycis discique calyculata, ad apicem teres obtusa; superficie glabrâ tuberculatâ; unilocularis, bivalvis, valvulis apice cohærentibus (an in fructu omninò maturo?), intùs pariete glaberrimo nitido, placentis duâbus parietalibus linearibus corrugatis, per axin valvularum trajectis.* Semina *plurima, atra, placentæ imbricatim adhærentia, tenuia, plano-convexa, alata.* Testa exterior

tenuis, in disco subcrustacea, ad marginem duplex diaphana, subintegra, undique venis brunneis, furcatis, distinctis pulcherrimè radiata, ad hilum emarginata. Embryo *ovatus, compressus, albus, inclusus in* testâ interiore *tenaci, opacâ, pallidè luteâ, ab exteriore omninò liberâ, nec etiam intrà marginem membranaceum extensâ, ad apicem tuberculo parvo paululùm unilaterali (chaluza?), ad basin in funiculo ipsâ longiore tenui convoluto productâ.* Cotyledones, *carnosi, compressi, subrotundi.* Radicula *parva, obtusa, hilo proxima.*

This splendid plant was first raised in 1824, by Mr. Tate, of the Sloane Street Nursery, from Mexican seeds communicated to him by R. P. Staples, Esq. Our drawing was made in Mr. Tate's Nursery in July last.

In Chili it becomes half-shrubby, and climbs all over the hedges and bushy plants in its vicinity, which it ornaments with a profusion of lovely vermilion-coloured flowers, which appear at almost all seasons of the year. In this country its habits have been scarcely ascertained; it thrives in the open border, better than in a greenhouse, but the first frost destroys it. Probably the treatment applied to Cobæa scandens, would be the most suitable for it. We possess native specimens, sent from Mendoza, by our friend Dr. John Gillies.

M. Kunth has expressed some doubts of the capsule being really unilocular, as that character appeared to be at variance with the structure common to other Bignoniaceæ. But it will appear, from the above description, that it is, in its earliest state, strictly unilocular with two parietal placentæ; if, therefore, the single cell of Bignoniaceæ were an essential characteristic of that order, Eccremocarpus would not be referrible to it. Let us, however, examine the ovarium of one of the commonest species of Bignoniaceæ, B. radicans. In this plant two fungous roundish placentæ issue from the sides of the ovarium, and jutting out into the cavity, finally meet in the centre, and there become united; now, in Eccremocarpus, these placentæ have precisely the same fungous form, and derive their origin from the sides of the ovarium in like manner, but they do not extend far enough into the cavity to touch each other, and, therefore, no cohesion takes place between them; whence the ovarium is unilocular.

The same kind of diversity of structure also obtains in Pedalinæ as proposed to be limited at fol. 934. In that order, at least in Martynia Zanquebarica, which is either a species of Josephinia, or a nearly related genus, the two opposite placentas meet in the centre, where they form a cohesion, but being 2-lobed, and their lobes revolute, a cohesion is again formed with the sides of the endocarpium, where the edges of the lobes touch it; whence the capsule is 6-celled, the two anterior and posterior empty cells being formed by the space occasioned by the divergence in opposite directions of the lobes of the placenta, and the 4 lateral seminiferous cells owing their existence to the accretion of the lobes of the placenta to the sides of the ovarium. Now, in Martynia, there being no folding back of the lobes of the placenta, which, on the contrary, are at right angles with their centre, and no cohesion taking place between the placentas themselves or their edges and the sides of the ovarium, the necessary consequence is, that the pericarpium is unilocular, with spurious cells; whence it may be predicated that Martynia bears the same relation to Pedalinæ as Eccremocarpus to Bignoniaceæ.

Perhaps Eccremocarpus may most properly be considered the connecting link between Bignoniaceæ and Gesnerieæ, agreeing with the latter in their unilocular ovarium, glandular pubescence, and some other peculiarities of appearance, and with the former in their more essential attributes. Cyrtandraceæ of Dr. Jack, which certainly have a 2-celled capsule as described by that lamented Botanist, and not a 4-celled one as erroneously stated by the author of some remarks upon Didymocarpeæ (which are the same order under another denomination), differ from Bignoniaceæ only in their apterous seeds and simple stigma, and from Gesnerieæ in their bilocular capsule, and the absence of albumen, agreeing with the latter altogether in habit; they may therefore be considered to have on the part of Gesnerieæ nearly the same relation to Bignoniaceæ, as Eccremocarpus on the part of the latter bears to Gesnerieæ.

J. L.

PANCRATIUM Mexicanum.

Mexican Pancratium.

HEXANDRIA *MONOGYNIA.*

Nat. ord. AMARYLLIDEÆ.
PANCRATIUM. *Suprà vol.* 3. *fol.* 221.

DIV. II. *Floribus sessilibus v. subsessilibus; limbo radiato; dentibus senis coronæ staminiferis.*

P. *mexicanum;* bi-multiflorum, foliis lineari-lanceolatis acuminatis, corollæ laciniis linearibus tubo longioribus, coronâ rotato-turbinatâ denticulatâ staminibus multò breviore, stigmate capitato, bulbi collo elongato.

P. mexicanum flore gemello candido. *Dill, elth.* 229. *t.* 222. *f.* 289.

P. mexicanum. *Linn. sp. pl.* 1.418. *Willd. sp. pl.* 2.42. *Ait. Kew. ed.* 2. 2.218. *Ker. in Journ. scientiæ cum ic. ex delineatione in museo Banksiano.*

Bulbus *Narcissi majoris magnitudine, collo elongato.* Folia *lineari-lanceolata, canaliculata, apice attenuata, atro-viridia, glaucedine nullâ.* Scapus *teres.* Umbella 4-5-*flora, spathâ multiplici, foliolis exterioribus latè ovatis sphacelatis, tubi dimidio longitudine.* Flores *sessiles albi;* tubus *circiter 3-uncias longus, obsoletè hexagonus; perianthii* laciniæ *lineares dependentes tubo paulò longiores;* corona *rotato-turbinata, laciniis multotiès brevior, margine denticulato.* Stamina *rigida è margine coronæ, erecta, coronâ multò longiora, filamentis viridibus.* Stylus *viridis, declinatus, staminum longitudine.* Stigma *capitatum.* Semina *carnosa.*

For the re-introduction of this fine species of Pancratium, from Mexico, the public is indebted to Sir Alexander Johnson, by whom it was presented to Mr. Colvill, with many curious Mexican seeds.

That it is the same as P. *mexicanum* of Linnæus, as determined by Mr. Dryander there can be little doubt. The figure given by Mr. Ker, from the Banksian library, represents a weak specimen, with two flowers, just as the 1082d plate of the Botanical Magazine exhibits a similar state of P. *rotatum,* to which this species is most nearly allied.

We have not seen the species in a growing state, but it appears, from information communicated to us by Mr. Sweet, that it is very distinct from any other in cultivation. The bulb, which is like that of a Narcissus, has a long, slender neck, and the leaves are of a bright green colour. It also seems to possess the character of perfecting nearly all its seeds, of which in other fleshy-seeded species only a small number arrives at perfection.

A hardy, green-house plant, flowering in April and May. *Leaves* linear-lanceolate, channelled, narrowed at the end, dark green, without glaucousness. *Scape* round: *Umbel* 4-5-flowered, with a many-leaved spatha, of which the outer divisions are broad, ovate, and withered, about half as long as the tube. *Flowers* sessile white; *tube* about 3 inches long, obscurely 6-cornered; *segments* linear, hanging down, a little longer than the tube; *corona* rotate-turbinate, much shorter than the segments, toothletted at edge. *Stamens* rigid, from the margin of the corona, erect, much longer than corona, with green filaments. *Style* green, declinate, the length of stamens. *Stigma* capitate. *Seeds* fleshy.

J. L.

MIMOSA pudica.

Humble Plant.

POLYGAMIA *TETRANDRIA.*

Nat. ord. LEGUMINOSÆ, Tribus VIII. *Mimoseæ* Decandolle prodr. 2.425.

MIMOSA Adanson.—Flores polygami. *Petala* 4-5 in corollam infundibuliformem 4-5 fidam connata. *Stamina* imæ corollæ aut ovarii stipiti inserta, numero loborum æqualia, dupla triplave nempè 4-15. *Legumen* compresso planum 1-00 articulatum, articulis monospermis, costis (*replo* R. Br.) persistentibus.——Stipulæ *petiolares.* Folia *conjugato-digitata aut duplicato-pinnata.* Flores *rosei aut albi in capitula digesti.* Folia *sæpè tactu sensibilia.* Decand. l. c.

Sect. I. Eumimosa *Dec. Legumina compresso-moniliformia, nempè costis ad articulationes contractis.—Flores rosei.*

M. *pudica;* caule herbaceo aculeato plus minùs petiolis pedunculisque piloso-hispidis, foliis subdigitato-pinnatis, pinnis 4 multijugis, foliolis linearibus. *Dec. l. c. p.* 426.

Æschynomme spinosa, &c. *Comm. hort.* 1. *t.* 29.

M. spinosa 3 siliquis parvis echinatis *Breyn. cent.* 40. *t.* 18.

M. pudica *L. sp. pl.* 1501. *Willd. sp. pl.* 4.1031. *Bot. Rep. t.* 544. *Ait. Kew. ed.* 2. 5. 455.

Var. M. tetrandra. *Willd. sp. pl.* 4.1032. sec. Decandolle.

Our drawing of this plant was made in the Garden of the Horticultural Society, where it had been raised from seeds received from Henry Willock, Esq. his Brittannic Majesty's Envoy to the Court of Persia. It is said to be a native of Brazil, but has now been introduced into every part of the world, not only for its beauty, but for the singular sensibility of the foliage.

In this country it may be treated as a tender annual, when it speedily arrives at perfection. To maintain a high degree of sensibility, it is necessary to keep it exposed to the influence of much heat, light, and humidity. It

therefore succeeds best in a well-managed iron curvilinear hothouse.

We are not sure whether this is the Persian plant called *Suluque,* mentioned by Christopher A Costa (cap. lv.) under the name of *Herba Viva,* to which some curious properties are ascribed, and which he says, " affirmârunt utilem esse virgines corruptas in integrum restituendas."

The singular and well-known property which the leaves of this and some other plants possess of retiring from the touch, and of exhibiting a kind of sensibility which is more the attribute of animal than of vegetable organisation, has lately been the subject of a curious memoir from the able pen of Dr. Dutrochet, a distinguished French Physiologist. As the opinions of that writer are little known in this country, we believe we cannot render a more acceptable service to our readers than by availing ourselves of the present opportunity of giving a short exposition of them.

M. Dutrochet states, that having ascertained hot nitric acid to possess the power of separating and reducing to its simplest form the whole mass of vegetable tissue, and that the action of the same acid produced other effects equally advantageous for the examination of the most obscure parts of vegetable structure, he was induced to give his attention to that of the Mimosa pudica, in the hope of gaining some evidence respecting the cause to which its sensibility is to be ascribed. Beginning with the pith, he observed a considerable number of minute globules of a greenish colour, intermingled among the cells, and adhering to them in an irregular manner. After attempting to shew the probability of these globules having deceived M. Mirbel in various points of his analysis of vegetation, and especially in regard to the pores which that Botanist supposes to exist in the cellular tissue of plants, Dr. Dutrochet proceeds to remark, that the application of hot nitric acid to these globules renders them perfectly opaque, whence he concludes that they are, in fact, minute cells filled with a particular fluid, which is subject to become concrete by the application of acids. Now it is known that such fluids as are thus altered by acids, are usually dissolved and liquefied again by the application of alkalies. A few drops, therefore, of a solution of hydrate of potash were suffered to fall upon

a portion of the pith on which nitric acid had been acting, and the mixture was exposed to the heat of a lamp. Being examined after a few minutes, the globules were found to have resumed their natural appearance. This curious fact indicated, in the opinion of Dr. Dutrochet a strong and unexpected point of analogy between plants and animals According to the microscopical researches of some modern observers, it has been ascertained that all the organs of animals are composed of a conglomeration of minute corpuscles, similar to those just described; the corpuscles which constitute the muscles are soluble in acids, but those which compose the nervous system are insoluble in the same acids, and only soluble in alkalies. Now, as the chemical properties and the external appearance of the particles scattered among the cellular tissue of plants, and constituting the nervous system of animals are the same, the author is induced to infer that the spherical particles of plants are in fact the scattered elements of their nervous system. This hypothesis receives additional strength from the great similarity which exists between the medullary substance of the brain of Mollusca Gasteropoda and the cellular medullary tissue of plants. In pursuit of this idea, Dr. Dutrochet made a variety of experiments upon the sensitive plant, the results of which seem to be these. The principal point of locomotion, or of *motility*, exists in the little swelling which is situated at the base of the common and partial petioles of the leaves; this swelling is composed of a very delicate cellular tissue, in which is found an immense number of nervous corpuscles; the axis of the swelling is formed of a little fascicle of tubular vessels. It was ascertained by some delicate experiments that the power of movement, or of contraction and expansion, exists in the parenchyma and cellular tissue of the swelling, and that the central fibres have no specific action connected with the motion. It also appeared that the energy of the nervous powers of the leaf depended wholly upon an abundance of sap, and that a diminution of that fluid occasioned an extreme diminution of the sensibility of the leaves. Prosecuting his remarks yet further, the author ascertained, that in the motion of the sensitive plant two distinct actions take place, the one of locomotion, which is the consequence of direct violence offered to the leaves, and which occurs in the swellings already spoken of;

the other of nervimotion, which depends upon some stimulus applied to the surface of the leaflets, unaccompanied by actual violence, such as the solar rays concentrated in the focus of a lens. As in all cases, the bending or folding of the leaves evidently takes place from one leaf to another with perfect continuity, it may be safely inferred, that the invisible nervous action takes place in a direct line from the point of original irritation, and that the cause by which this action of nervimotion is produced must be some internal uninterrupted agency. This was, after much curious investigation, determined by the author to exist neither in the pith, nor in the bark, nor even in the cellular tissue filled with nervous corpuscles, and on which he supposes the locomotion of the swelling at the base of the petioles to depend. It is in the ligneous part of the central system, in certain tubes supplied with nervous corpuscles, and serving for the transmission of the sap, that Dr. Dutrochet believes he has found the true seat of nervimotion, which he attributes to the agency of the sap alone, while he considers the power of locomotion to depend upon the nervous corpuscles alone.

Without subscribing to this doctrine, unless with some exceptions, such, for instance, as to the essential difference between locomotion and nervimotion, which are, perhaps, capable of being identified, we cannot but express our admiration of the industry, dexterity, and philosophical acumen displayed by the author in every part of his work, which is well deserving the attentive consideration of all physiological botanists.

J. L.

942

CAMELLIA oleifera.

Oil-seed Camellia.

MONADELPHIA *POLYANDRIA.*

Nat. ord. CAMELLIEÆ. *Decand. prodr.* 1.529. Theaceæ *Mirb.*
CAMELLIA L.—*Suprà vol.* 1. *fol.* 22.

C. *oleifera;* foliis ellipticis utrinque acutis argutè serratis subtùs subaveniis, petalis bilobis, sepalis deciduis.

C. *oleifera;* foliis ellipticis acutis subtùs aveniis punctatis, calycibus sericeis, germine lanato. *Abel's Journey in China, p.* 174. *c. icone bonâ; Appendix, p.* 363.

Frutex *altus, v. arbor mediocris, ramosissimus.* (Abel.) Ramuli *teretes, brunnei, pube levissimâ obsiti.* Folia *coriacea, glabra, plana, elliptica, utrinque acuta, apicem versùs acutè serrata, subtùs pallidiora ferè omninò avenia, sub lente puncticulata, pedunculata: pedunculis subteretibus leviter ciliatis.* Flores *axillares, v. terminales, solitarii, sessiles, albi, magnitudine C. Sasanquæ.* Calyx *imbricatus, polyphyllus, sericeus: foliolis inferioribus deciduis, duobus superioribus majoribus petaloideis persistentibus.* Petala *5-6, biloba, plana, cuneata, patentia.* Stamina *plurima, erecta, altè monadelpha, in annulum basi petalorum accretum et cum iis deciduum cohærentia.* Antheræ *ut in Thea Bohea, sed basi minùs cordatæ.* Pollen *sphæricum minutissimè corrugatum.* Ovarium *triloculare, loculis 5-6 spermis;* ovula *angulata, valdè inæqualia.* Styli 3 *ad apicem ferè connati.* Stigmata *totidem, simplicia, paulò capitata.*

This species of Camellia has been overlooked by M. De Candolle in his arrangement of the genus in the first volume of his Prodromus. It was imported for the Horticultural Society, in 1820, by Captain Nesbitt, in the Honourable East India Company's Ship, the Essex, from which, and subsequent importations for the society, all the plants now in this country have been derived. Our drawing was made at Mr. Colvill's Nursery, last autumn. It requires the same management as other Camellias.

The *Thea oleosa* of Loureiro seems to be very nearly the

same as this, and like it produces an abundance of fine pale yellow oil, which is used in China for various economical purposes. Judging, however, from Loureiro's description, the two plants can scarcely be identified, notwithstanding the resemblance in the Cochinchinese name, Chè-deau, ascribed to his plant by that author, and the Chinese name Tcha-Yeoa, mentioned by our friend Dr. Abel, who thus speaks of the *C. oleifera* which he found in the southern provinces of the Chinese empire.

"We sometimes found it of the magnitude of a moderate-sized cherry-tree, and always that of a large shrub, from six to eight feet in height, and bearing a profusion of large single white blossoms. This circumstance gave an interesting and novel character to the places which it covered. They often looked in the distance as if lightly clothed with snow; but on a nearer view exhibited one immense garden. The Camellia oleifera seems to flourish best in a red sandy soil, on which few other plants will grow. The Chinese cultivate it in large plantations, and procure from its seed a pure esculent oil, by a very easy process."

A tall shrub, or middle-sized tree, with many branches. *Branches* round, brown, with a very slight down. *Leaves* coriaceous, smooth, flat, elliptical, acute at each end, towards the end acutely serrated, beneath of a paler colour, with scarcely any veins, but a few minute dots. *Flowers* axillary or terminal, solitary, sessile, white, the size of those of Camellia Sasanqua. *Calyx* imbricated, many-leaved, silky; the lower leaflets deciduous, the two upper larger petaloid and persistent. *Petals* 5-6, two-lobed, cuneate, flat, spreading.

J. L.

943

FUCHSIA arborescens.

Tree Fuchsia.

OCTANDRIA *MONOGYNIA.*

Nat. ord. ONAGRARIÆ.
FUCHSIA.—V. suprà, vol. 10. *fol.* 847.

F. *arborescens;* foliis bi-quaternatim verticillatis ovalibus acuminatis glaberrimis, thyrso terminali multifloro, petalis patentibus apiculatis, stigmate 4-fido radiato.

F. arborescens. *Moçino and Sesséfl. peruv. ined.* secundùm *Cervantesium in litteris. Bot. mag.* 2620.

Frutex *arborescens, erectus, ramosus; ramis teretibus; adultis cinereis cortice rimoso, novellis teneris, purpureis, glaberrimis.* Folia *opposita, vel* 3-4-*natim verticillata, ovalia, glaberrima, acuminata, versùs basin angustata, ad marginem minutissimè denticulata, petiolis semiteretibus purpureis.* Thyrsus *terminalis, multiflorus, ferè aphyllus, ramulis teretibus ascendentibus.* Bracteolæ *minimæ, deciduæ.* Calyx *rubescens, tubo brevi infundibulari; limbo tubo longiore, 4-partito; laciniis oblongis, acuminatis, patentibus.* Petala 4, *calyce breviora, oblonga, apiculata, patentia, purpurea.* Stamina *petalis paulò breviora, inæqualia.* Pollen *album.* Stigma *staminibus paulò longiùs, 4-lobum; lobis patentibus, radiatis, obtusis.*

Seeds of this superb species of Fuchsia were received in the spring of the year 1824 from Mexico, by various parties, and in all cases, we believe, under the name which we have adopted. The plant from which our drawing was made, blossomed in great perfection in the greenhouse of John Wrench, Esq., of Camberwell Terrace, in October last. We have since been favoured with beautiful specimens from the garden of Alexander Baring, Esq., at the Grange, where the plant grew with astonishing vigour, producing an abundance of bunches of the most lively pink, under the judicious management of Mr. Peter M'Arthur. With ordinary cultivation, the plant has appeared to be of little value, but the representation of it which accompanies this article shews to what perfection it

is capable of being brought by skilful and attentive cultivation. It is nearly hardy, flourishing most in a conservatory, where it may be just preserved from frost, and exposed to a free circulation of air. In a confined or overheated situation the flowers refuse to expand.

In general habit this species is so different from any other Fuchsia in our gardens, that, before it flowered, doubts were entertained of its really belonging to that genus. One ingenious gentleman, indeed, fancied he had discovered that it did not even belong to the same natural order, but was a species of Lisianthus. A glance at the other South American kinds, which have not yet been introduced, might have spared such unprofitable speculation.

The genus Fuchsia is capable of being advantageously divided into two distinct sections, of which F. tenella and gracilis may be considered the types of one, and this species and F. lycioides of the other.

An arborescent, erect, branched shrub, with round branches, of which the old ones are cinereous, with a cracked bark, the young ones of a bright, delicate purple. *Leaves* opposite, or whorled in threes or fours, oval, very smooth, acuminate, narrowed towards the base, very minutely toothletted at the edge; *petioles* half-round, purple. *Thyrse* terminal, many-flowered, nearly leafless, with round ascending branchlets. *Bracteolæ* very small, deciduous. *Calyx* pink, with a short funnel-shaped *tube*, and a *limb* which is longer than the tube, and 4-parted; with oblong, acuminate, spreading segments. *Petals* 4, shorter than the calyx, oblong, apiculate, spreading, purple. *Stamens* a little shorter than petals, unequal. *Pollen* white. *Stigma* a little longer than stamens, 4-lobed; lobes spreading, radiate, blunt.

J. L.

KENNEDIA cordata.

Large-leaved Kennedia.

DIADELPHIA *DECANDRIA.*

Nat. ord. LEGUMINOSÆ. Tribus V. *Phaseoleæ* Decand. prodr. 2.381.

KENNEDIA, Vent.—*Calyx* bilabiatus, labio superiore bidentato, inferiore trifido æquali. *Corolla* papilionacea, vexillo recurvo à carina non reflexo. *Stamina* diadelpha. *Stigma* obtusum. *Legumen* lineare compressum isthmis cellulosis transversè multiloculare. *Semina* strophiolata.——Frutices *Novæ Hollandiæ, volubiles.* Pedunculi *axillares.* Flores *rubri aut violacei: vexillo basi bimaculato.* Dec. prodr. 2.383.

K. *cordata;* foliolis solitariis cordatis ovatis apiculatis petiolo subæqualibus, stipulis superioribus ovatis, racemis multifloris petiolo longioribus.

Rami *volubiles, glabri, angulati.* Foliola *solitaria, cordata, ovata, apiculata, reticulata, glabra, petiolo non multùm longiora;* stipulæ *ad basin petioli ovatæ acuminatæ, ad basin folioli ovatæ acutæ.* Racemi *axillares, multiflori, erecti, petiolis longiores, glaberrimi.* *Cætera* K. monophyllæ.

We do not scruple to distinguish this plant from K. *monophylla,* with which we have seen it confounded in some collections, and under the name of which our specimens were communicated from the garden of the Comtesse de Vandes, at Bayswater. The leaves are much broader, of different proportions, both with respect to themselves and to their footstalk, and acute with a little point. It is, doubtless, a native of N. Holland, and requires the same treatment as K. monophylla. Our drawing was made in April 1825.

While preparing this article for the press, the long-expected second part of M. De Candolle's Prodromus has reached us, in which we find Kennedia occupying a place among his tribe of Phaseoleæ, which are distinguished from other Leguminosæ with a curved embryo, by a polyspermous dehiscent pod, and leaves without tendrils, the first pair of which, after germination, is alternate; by this last character the tribe is separated from Vicieæ.

The principal points which it has appeared to M. De Candolle advisable to consider, with regard to the distribution of Leguminosæ into natural tribes, are, 1. the state of the embryo as to the division of its radicle, which is either curved or straight; 2. the nature of the calyx, whether distinctly lobed or not; 3. the insertion of stamens, whether hypogynous or perigynous; 4. the nature of the corolla, whether papilionaceous or otherwise; 5. the æstivation of the corolla, whether imbricated or valvular; 6. the texture of the cotyledons, whether thick and fleshy, or thin and leafy; 7. the structure of the legumen; and, 8. the insertion of the first pair of leaves produced after germination, which are either alternate or opposite.

By the aid of these characters, he has divided the whole order into 11 tribes: viz. 1. *Sophoreæ*, 2. *Loteæ*, 3. *Hedysareæ*, 4. *Vicieæ*, 5. *Phaseoleæ*, 6. *Dalbergieæ*, 7. *Swartzieæ*, 8. *Mimoseæ*, 9. *Geoffreæ*, 10. *Cassieæ*, 11. *Detarieæ*. Under these heads are arranged 282 genera, and about 3806 species.

A twining shrub, with smooth, angular *branches*. *Leaflets* large, solitary, cordate-ovate, apiculate, netted, smooth, not much longer than the petiole. *Stipules* at the base of the petiole ovate acuminate, at the base of the leaflet ovate acute. *Racemes* axillary, many-flowered, erect, longer than petiole, quite smooth. *Flowers* bright purple, very handsome. J. L.

945

CLERODENDRON lividum.

Discoloured Clerodendron.

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. VERBENACEÆ.
CLERODENDRON. *Suprà vol. 5. fol.* 406.

C. *lividum;* foliis oblongis dentatis utrinque acuminatis lividis: petiolo costâque tomentosis, calyce inflato pentagono, cymis tomentosis axillaribus foliis brevioribus.

Suffrutex *humilis, glaber, non lucidus, undique magìs minùsve purpurascens.* Folia *petiolata, oblonga, acuminata, grossè dentata, versùs basin integra, petiolo costâque tomentosis.* Cymi *axillares, pedunculati, tomentosi, foliis multò breviores.* Calyx *coloratus, ovatus, acutus, inflatus, altè 5-partitus: laciniis marginibus applicitis angulos quinque formantibus.* Corolla *rubido-alba, hypocrateriformis, tubo recto, subinfundibulari, gracili, calycis longitudine, ad basin staminum hirsuto; limbo obliquo, reflexo, 5-partito: laciniis regularibus, ovatis, demùm revolutis, inferiore porrecto bilobo.* Stamina *subæqualia, corolla longiora, declinata, versùs medium tubi inserta, demùm utrinque gyratìm retorta.* Antheræ *glabræ, sagittatæ, atro-brunneæ.* Stylus *filiformis, staminibus brevior.* Stigma *acutum, bifidum.* Ovarium *subrotundum, glabrum, 4-loculare: ovulis totidem ascendentibus.*

A new and remarkable species of Clerodendron, brought from China, for the Horticultural Society, in 1824, by Mr. J. D. Parkes. Our drawing was made at the Chiswick garden, in November of the same year.

This differs from all the species with which we were previously acquainted, in its dull, livid aspect, and inflated angular calyx, which increases in size with the growing fruit.

A low livid bush, almost entirely smooth, and destitute of a shining appearance, requiring the protection of a common greenhouse, where the largest plants we have yet seen have not exceeded 3 feet in height. The *leaves* are

stalked, oblong, acuminate, entire towards the base, with the petiole and midrib downy. *Cymes* axillary, stalked, downy, much shorter than leaves. *Calyx* coloured, ovate, acute, inflated, deeply 5-parted; the segments forming 5 angles with their united edges. *Corolla* white, a little stained with madder, hypocrateriform; tube straight, somewhat funnel-shaped, slender, length of calyx, at the base of the stamens hairy; limb oblique, reflexed, 5-parted, with regular, ovate, finally revolute segments, of which the lowermost is 2-lobed, and projecting. *Stamens* nearly equal, longer than corolla, declinate, inserted about the middle of the tube, finally curled back on each side. *Anthers* smooth, sagittate, dark brown. *Styles* filiform, shorter than stamens. *Stigma* acute, bifid. *Ovary* roundish, smooth, 4-celled; ovules 4 ascending.

J. L.

ÆGIPHILA elata.

Tall Ægiphila.

TETRANDRIA *MONOGYNIA.*

Nat. ord. VERBENACEÆ.

ÆGIPHILA L.—*Cal.* campanulatus 4-dentatus. *Cor.* 4-fida. *Stylus* bifidus filiformis. *Bacca* bilocularis; loculis 2-spermis. *Spreng. syst. veg.* 1.368.

Æ. *elata;* foliis elliptico-acuminatis membranaceis, paniculis terminalibus, calycibus pubescentibus. *Swartz prodr.* 31. *fl. ind. occ.* 1.254.

Knoxia scandens. *Browne jam.* 140. *t.* 3. *f.* 3.

Æ. elata. *Willd. sp. pl.* 1.616. *Römer and Schultes,* 3.102. *Spreng. syst. veg.* 1.422.

Scandens. Rami *teretes, leviter pubescentes.* Folia *elliptica, utrinque acuminata, præsertim ad apicem, membranacea, glabra.* Paniculæ *terminales, corymbosæ, compactæ, pubescentes.* Calyx *ferè integer, pubescens.* Corolla *calyce multò longior, flava, glabra: laciniis ovatis obtusis.* Stamina *exserta.* Stylus *staminibus brevior, bifidus.*

Brought to the Comte de Vandes from St. Vincent's, in 1823, by Mr. James M'Crae. It was originally found climbing among thickets in Jamaica, by Dr. Patrick Browne, who called it Knoxia, and has given a good uncoloured figure of it in his History of Jamaica.

Our drawing was made in August 1824. The plant requires the heat of a stove, and may be increased without difficulty by cuttings.

J. L.

EUCALYPTUS longifolia.

Long-leaved Eucalyptus.

ICOSANDRIA *MONOGYNIA.*

Nat. ord. MYRTACEÆ.

EUCALYPTUS L.—*Cal.* truncatus, in æstivatione calyptra caduca tectus. *Capsula* infera, 4 locularis, polysperma. *Spreng. syst. veg.* 2.473.

E. *longifolia;* operculo hemisphærico submutico, foliis lineari-lanceolatis basi cuneatis subinæqualibus, umbellis paucifloris pedunculatis axillaribus.

Our drawing of this species of Eucalyptus was made some months since, from a plant 7 feet high, in the conservatory of the Comtesse de Vandes, at Bayswater. No specimens having been preserved at the time, and the plant having subsequently perished, we are unable to offer any other description of the species than could be obtained from our figure.

The numerous species of Eucalyptus of which the forests of many parts of New Holland are chiefly composed, are almost unknown to the European world. Twenty-four only have been enumerated in the most recent botanical compilation which has been published, so that the public are waiting with impatience for the appearance of the 2d volume of Mr. Brown's Prodromus, from which alone is any really valuable account of the genus to be expected. In the meanwhile the subject of this article may stand as a distinct species, differing from *E. viminalis* in the form of its operculum, in the nature of its inflorescence, and in the greater breadth of its leaves; from *E. amygdalina* in the two latter characters, and from *E. obliqua* chiefly in the form of its leaves. *E. resinifera*, under which name we are told this plant was purchased by the Comte de Vandes, is quite a different thing, with a long rostrate operculum.

J. L.

947

LIATRIS intermedia.

Dwarf-branched Liatris.

SYNGENESIA *ÆQUALIS.*

Nat. ord. Compositæ. Vernonieæ *Cassini.*
LIATRIS.—Suprà, fol. 590.

Div. I. *Spicatæ v. racemosæ; bulbosæ.*

L. *intermedia;* caule humili paniculato pilosiusculo, foliis longis linearibus scabriusculis marginatis, involucris turbinatis multifloris: foliolis exterioribus rigidis acutis subfoliaceis appressis, pedunculis foliosis.

Radix *tuberosus.* Caulis $1\frac{1}{2}$ *pedalis, paniculatus, angulatus, pilosiusculus, subcorymbosus.* Folia *inferiora graminea, glabra, marginata, tactu scabriuscula, obsoletè trinervia; superiora breviora.* Involucra *terminalia in apices ramulorum, turbinata, multiflora, foliolis imbricatis, acutis, interioribus membranaceis, exterioribus majoribus, sub-foliaceis, pungentibus, ciliatis, non squarrosis.* Flosculi *sub lente forti sericosi.* Ovarium *obovatum, striatum, pilosum.* Pappus *pulcherrimè plumosus.*

We know of no genus of garden plants which stands in need of such thorough reformation as Liatris, or which would so well repay an acute observer for his attention. The species are all of great beauty; they are easily cultivated, and preserved without difficulty, if taken out of the ground in the autumn, and kept in pots in frames during the winter; and they are in a state of extraordinary confusion as to characters and synonyms. The specific definitions of American botanists appear to have been formed with reference to the species in a state of nature only: to cultivated plants they are, almost without exception, inapplicable.

It is impossible but the plant before us must be known to native writers upon the American Flora, as it is far from uncommon in Canada, whence we have dried specimens, collected by Mr. Goldie, and whence the roots which pro-

duced the present plant were brought to the Horticultural Society, by Mr. David Douglas, in 1824. Perhaps it has been confounded with either *L. scariosa* or *squarrosa*, from both which it is certainly distinguished by its humble growth and long narrow leaves. From *L. scariosa* it differs in its dwarf panicled stem and turbinate involucra, with acute pungent leaflets; from *L. squarrosa*, also, in the form of its involucra, in the totally different disposition of the leaflets of that part, and in an abundance of other particulars. To the various spiked species from *L. macrostachya*, to the elegant *L. sphæroidea*, it bears very little resemblance. *L. gracilis* of Pursh, said to be a variety of *L. pilosa*, which we cannot believe, has small round heads of flowers, with blunt leaflets, and not turbinate heads with pungent leaflets.

A hardy, perennial plant, flowering in August and September. Our drawing was made in the Chiswick garden, in 1824.

Root tuberous. *Stem* 1 to 1½ foot high, panicled, angular, a little hairy, somewhat corymbose. Lower *leaves* grassy, smooth, hard-edged, roughish to the touch, obsoletely 3-nerved; upper are shorter. *Involucres* terminal, at the end of the branchlets, turbinate, many-flowered; leaflets imbricated acute: inner membranous; outer larger, somewhat leafy, pungent, ciliated, not squarrose. *Florets* under a magnifying glass very slightly silky. *Ovarium* obovate, striated, hairy. *Pappus* beautifully feathery.

J. L.

949

MORÆA Herberti.

Mr. George Herbert's Moræa.

TRIANDRIA *MONOGYNIA.*

Nat. ord. Irideæ.
MORÆA.—Suprà, vol. 4. *fol.* 312.

M. *Herberti;* foliis linearibus acuminatis plicatis scapo brevioribus, scapo ramoso terete multifloro: ramis fasciculatis, spathis inflatis flore multò brevioribus, sepalis interioribus medio abruptè incurvo-revolutis quàm exteriora minoribus imberbibus.
Tigridia Herbertiana. *W. Herbert in bot. mag. t.* 2599.
Obs. M. gladioloidi *Kunthii* quàm maximè affinis.
Herba *bulbosa: bulbo vestigiis foliorum tecto.* Folia *linearia, acuminata, biplicata, angulis plicarum alatis, lætè virides, pedales vel circa.* Scapus *erectus,* 2-3 *pedalis, flexuosus, teres, glaucus, ramosus, multiflorus.* Flores *magni, luteo-aurantiaci, inodori, brevi spatio flaccidi.* Perianthium *basi campanulatum: laciniis exterioribus oblongo-spatulatis, patentibus, planis, tortis, apice caudatis, per axin purpuratis, basi semidiaphanis, pallidis, purpureo lineatis; interioribus nanis, erecto-patentibus limbo revoluto, apice obtuso, medio concavo pallido, utrinque purpureo crebrè penicillato.; ungue plano, semidiaphano, purpureo striato.* Filamenta *in stipite brevi carnoso connata, sepalis majoribus et stigmatibus opposita;* antheræ 3, *erectæ, hastatæ, stigmatibus breviores, loculis purpureis.* Ovarium *inferum.* Stigmata *tria, bifida, medio bidentato elevato.*

This subject was originally supplied for the use of the Botanical Register, from the garden of the late Honourable and Reverend George Herbert, after which lamented gentleman it was then named by the writer of the present article. Some unavoidable delay having occurred in the preparation of our figure for the press, the plant has in the mean while been published in the Botanical Magazine. The difficulty of avoiding repetitions of this kind in contemporary periodical publications is too obvious to require explanation. With ourselves, however, they are always a subject of regret, because they are seldom advantageous

to the public. In the present instance we are fortunately relieved from responsibility on the ground of unnecessary repetition, both from the circumstances we have alluded to, and from the necessity of making an indispensable alteration in the name which has been published in the Botanical Magazine.

We beg to declare our perfect innocence of referring this plant to Tigridia, to which we think it bears as little affinity as from its belonging to the same Natural Order it well can bear. In the colour of its flower, indeed, and in the general appearance of the foliage, a resemblance may be easily observed with Tigridia, but in all the essential parts of fructification the differences are so great as to place the two plants in different tribes of the same order. There can be no doubt that it is a genuine species of Moræa, a genus well distinguished from the Cipura of Aublet, or Marica of our gardens, by the stamens being opposite the stigmas, and not alternate with them. From Iris, indeed, Moræa scarcely differs, as Mr. Ker has long ago shewn, except in having bulbous roots, a natural character in which it agrees with Tigridia. We scarcely need remark, that the latter is at once distinguished from Moræa by its stamens, which are united in a long column, by its bifid, slender, convolute stigmas, and sagittate sepals.

Moræa gladioloides of M. Kunth is the most nearly related to this, but appears distinct in the solitary branches of its inflorescence. It is found in a much hotter country, near Caxamarca, a city of Upper Peru, more than 25 geographical degrees to the north of the station of our species.

A native of the temperate regions of South America, and probably hardy enough to thrive very well in a greenhouse. For ourselves, we have only seen it cultivated in a stove. It was originally imported from Buenos Ayres, by the Right Honourable the Earl of Caernarvon. Mr. W. Herbert informs us he has raised it from Brazilian seeds; and we possess fine specimens collected by our friend Dr. John Gillies, on the high ground about Mendoza, in Chili. Our native specimens are far more luxuriant than any we have seen in cultivation.

A bulbous-rooted plant; its bulb covered with the remains of the leaves. *Leaves* linear, acuminate, twice

plaited, the angles of the plaits being winged; bright green, about a foot long, or thereabouts. *Scape* erect, 2-3 feet high, flexuose, round, glaucous, branched, many-flowered. *Flowers* large, yellowish orange-coloured, scentless, soon withering. *Perianth* campanulate at base; the outer segments oblong, spatulate, spreading, flat, twisted, caudate at the point, with a purple line in the axis, at the base half-transparent, pale, and streaked with purple lines; inner much smaller, erect-spreading, with a revolute limb, which is obtuse at the end, concave and pale in the middle, and closely pencilled with purple on each side; its claw flat, half-transparent, streaked with purple. *Filaments* adhering in a short, fleshy stalk, placed opposite to the larger sepals and the stigmas; *anthers* 3, erect, hastate, shorter than stigmas, with purple cells. *Ovarium* inferior. *Stigmas* 3, bifid, with a two-toothed and elevated centre.

J. L.

950

HETEROPTERIS nitida; *var.* β.

Shining Heteropteris, with brown leaves.

DECANDRIA *TRIGYNIA.*

Nat. ord. MALPIGHIACEÆ. Trib. III. Banisterieæ D. C.
HETEROPTERIS, Kunth. Omnia Banisteriæ, sed styli minùs apice dilatati, et Carpellorum alæ deorsùm (ut in Acere) nec supernè incrassatæ. *Dec. prodr.* 1.591.

H. *nitida;* foliis ellipticis acuminatis supernè subsinuatis, suprà nitidis, petiolis eglandulosis, paniculâ terminali foliosâ.

α; *argentea,* foliis subtùs argenteis.

Banisteria nitida. *Lamarck encycl.* 1.364. *Cav. diss.* 9. *p.* 422. *t.* 244. *Willd. sp. pl.* 2.740.

H. nitida. *Kunth. in H. et B. nov. gen. et. sp. pl.* 5.163. *Dec. prodr.* 1.592.

β; *aurea,* foliis subtùs aureis.

Rami *teretes, corrugati, verrucis crebris parvis albis scabri.* Folia *elliptica, utrinque acuta, margine subsinuata, suprà glabra, infrà tomento aureo sericea.* Petioli ½-*teretes eglandulosi.* Corymbi *terminales et axillares, pedunculati, foliosi, paniculati, tomento rufo velutini: ramulis compressis.* Flores *lutei, speciosi.* Calyx *5-partitus; foliolo quoque basi biglanduloso.* Stamina *sericea.* Styli *tres, tenues, glabri.*

For this plant we are indebted to Mr. John Lee, of the Hammersmith Nursery, where our drawing was made in July 1825. A tender stove shrub, native of the Brazils, and a beautiful ornament to a collection, for the sake both of its foliage and flowers.

We do not find that it differs from the Banisteria nitida of Cavanilles in any other respect than in the colour of the under surface of the leaves, which is stated to be silvery in that plant, but which is of a bright golden-brown in this. Their inflorescence is alike, the outline of their leaves, especially in the sinuate margin, perfectly agrees, and they are both distinguished from Heteropteris chrysophylla by the absence

of glands from their petioles; the latter plant has also small vermilion-coloured flowers, and an entirely distinct kind of inflorescence.

The present is the first representation of the plant in a flowering state; the figure of Cavanilles is uncoloured, and was taken from a dried specimen in fruit.

Branches round, wrinkled, rough with numerous little scattered white warts. *Leaves* elliptical, acute at each end, somewhat sinuated at edge, smooth above, silky beneath, with gold-coloured down. *Petioles* half-round, without glands. *Corymbs* terminal and axillary, stalked, leafy, panicled, velvety, with a brown down; *branchlets* compressed. *Flowers* yellow, showy. *Calyx* 5-parted; each leaflet with two glands at the base. *Stamens* silky. *Styles* 3, slender, smooth.

J. L.

951

HOYA pallida.

Pale-flowered Hoya.

PENTANDRIA *DIGYNIA.*

Nat. ord. ASCLEPIADEÆ.

HOYA, R. Br.—*Massæ pollinis* læves, 10, erecto-conniventes. *Antheræ* membranâ terminatæ. *Corona* staminea 5-phylla, foliolis depressis, angulo interiore producto in dentem antheræ incumbentem. *Cor.* rotata. *Brown in Hort. Kew.* 2.84.

H. *pallida;* foliis ovato-lanceolatis acuminatis carnosis venosis, umbellâ hemisphæricâ compactâ.

OBS. Hoya carnosa differt, præter characteribus suprà datis, colore *foliorum* multò intensiore, *floribus* rubicundis odoratioribus, laciniis corollæ acutioribus.

This new species of Hoya has been known for a long time to exist in collections, but we believe that the specimen from which our drawing was made, was the first flowering branch that had been produced. It was communicated to us in July 1825, by His Grace the Duke of Northumberland, from his noble garden at Sion House.

From Hoya carnosa, and all its seedling varieties, H. pallida may be readily distinguished by the pallid hue which pervades every part; an absence of colouring which extends even into the flowers. The latter are less fragrant, and their segments are less acute than those of H. carnosa.

A hothouse climber, of the easiest culture.

J. L.

952.

Pub by J. Ridgway 169 Picc

HALESIA parviflora.

Small-flowered Halesia.

DODECANDRIA *MONOGYNIA.*

Nat. ord. STYRACEÆ.

HALESIA, Ellis.—Calyx minimus, 4-dentatus. *Corolla* magna, campanulato-ventricosa, ore sub 4-lobo. *Stamina* 12-16, filamentis basi in tubum connatis et corollæ adnatis; antheræ oblongæ, erectæ. *Germen* inferum. *Stylus* 1. *Stigma* 1. *Nux* corticata, oblonga, 4-gona, angulis alatis, stylo persistente acuminata, 4-locularis, 4-sperma; loculis 2-3, sæpè abortivis.——Frutices; *pedunculi plures, axillares, uniflori.* Fructûs *alæ in* H. tetrapterâ *æquales, in* H. diptera 2 *oppositæ cæteris minores.* Juss. gen. 165.

H. *parviflora;* foliis ovato-oblongis acutis subintegris utrinque pubescentibus subtùs glaucis, racemis foliosis paniculatis, dentibus calycinis ovatis, stylo incluso, floribus octandris.

H. parviflora *Michaux, fl. bor. am.* 2.40. *Pursh. am. sept.* 2,450. *Nuttall. gen. am.* 2.83.

Rami *adulti læves, brunnei, juniores pubescentes.* Folia *ovato-oblonga, breviter acuminata, utrinque pubescentia, suprà viridia, subtùs glauca, juniora integra; adulta subdenticulata.* Flores *albidi, quàm H. tetrapteræ paulò minores, in racemis subcompositis pendulis dispositi, cum foliis cotemporanei.* Calyx *obovatus, tomentosus, 4-dentatus, dentibus ovatis acutis.* Petala *rugosa, tomentosa, obovata, obtusa, æstivatione imbricata.* Stamina 8, *petalorum longitudine.* Filamenta *pilosa.* Stylus *inclusus.*

This rare plant was most kindly communicated to us in May last by the Dowager Countess of Aylesford, from her collection at Stanmore, where, her ladyship informs us, it has existed for fifteen or twenty years, without producing flowers, until the specimen now represented made its appearance. It was sent to Lady Aylesford with the name of Halesia diptera; an obscure plant, respecting which we have a few remarks to offer.

Under the article Halesia in Rees's Cyclopædia, we find the following note by Sir James Edward Smith:

" The first botanists in this country were always in doubt concerning Halesia diptera, and the herbarium of Linnæus, when it arrived, was anxiously consulted upon this subject, but proved to contain nothing certain except the fruit, the leaves pasted by it being full-grown Styrax grandifolium."

It therefore appears, that as far as Linnæus is concerned, little hope is to be entertained of ascertaining from his writings what he intended by H. diptera.

Willdenow, however, was acquainted with a plant which he considered referable to H. diptera, and which was cultivated in the Berlin Garden. This plant he describes as having leaves green on each side, twice as large as those of H. tetraptera, and very soft, with minute hairs on the under side. Pursh adopts the definition and account of Willdenow, only adding that the flowers are larger than in H. tetraptera. Nuttall makes no remark upon either Willdenow or Pursh, but observes, that the species is found occasionally round Savannah, in Georgia.

It is evident, then, that these writers, who, as we have seen, are the only modern authority for H. diptera, could not have intended to describe the present plant, which has leaves no larger than those of H. tetraptera, and glaucous beneath; and flowers not only smaller than in that species, but having a different mode of inflorescence, an included style, and large ovate teeth to the calyx; all of which latter characters would necessarily have been remarked by such acute observers.

The H. parviflora to which it appears to us that the present plant is referable, is a species unknown to Pursh, who only adopts it from Michaux, and said by Nuttall to be scarcely distinct from H. tetraptera.

That from the latter our plant is very different, an inspection of our figure will render obvious. The leaves are, when young, entire, or nearly so, becoming toothed only as they grow old, and not being regularly denticulate in their earliest state as in H. tetraptera. The flowers are produced at the same time as the leaves, and appear in loose leafy pendulous panicled racemes, not in naked fascicles; the calyx has four ovate teeth, which in

H. tetraptera are almost obsolete as in Styrax. Besides these points of difference, while *H. tetraptera* produces an abundance of blossoms continually, even upon plants a foot high, the present species scarcely flowers under any circumstances.

A hardy shrub, with the old branches smooth and brown, and the young branches downy. *Leaves* ovate oblong, with a short point, downy on each side, green above, glaucous beneath; the young ones entire, the full grown ones toothletted. *Flowers* whitish, a little smaller than in H. tetraptera, disposed in somewhat compound pendulous racemes, appearing at the same time as the leaves. *Calyx* obovate, downy, 4-toothed, with ovate acute teeth. *Petals* rugose, downy, obovate, obtuse, in estivation imbricated. *Stamens* 8, the length of petals. *Filaments* hairy. *Style* included.

J. L.

CATTLEYA Forbesii.

Forbes's Yellow Cattleya.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDEÆ. Tribus VI. Epidendreæ *Lindl. Coll. Botanica in Append.*

CATTLEYA Lindl. — *Perianthium* resupinatum patens: laciniis subæqualibus. *Columna* libera, semiteres, labello eroso cucullato amplexa. *Anthera* infrà-apicilaris, oprecularis, persistens, columnæ apice subulato supertecta, 4-locularis; septis completis membranaceis marginatis. *Massæ pollinis* 4, lenticulares, per pares filo elastico granulato in ipsis reflexo connexæ.——Herbæ *parasiticæ* (Americæ æquinoctialis); bulbis *fasciculatis*; foliis *solitariis, carnosis, enervibus*; floribus *terminalibus, geminis, grandibus, subodoris.* Lindl. l. c. tab. 33.

C. *Forbesii*; foliis oblongis obtusis planis, sepalis lanceolatis subæqualibus; interioribus angustioribus undulatis obtusis, labelli trilobi lobo medio cordato lunato argutè dentato apice saccato. *Lindl. l. c.*

Planta epiphyta, è caudice tortuoso, cicatrizato, repente, promens caules plures, unipedales, teretes, sursùm clavatos, vestigiis membranaceis arctè appressis, striatis, albidis, internodiis longioribus vestitos. Folia *in fastigio, bina, plana, coriacea, sessilia, ad marginem scabrella, enervia, ovali-lanceolata, subopposita, obtusa, cum apiculo.* Flores *bini, inodori cum pedunculo terete foliis longiores.* Bractea *parva, non spathacea, sphacelata, rigida, acuminata, vaginans, pedunculo multò brevior.* Perianthii *laciniæ lineari-lanceolatæ, acutæ, extùs luteo-fuscæ, intùs ochraceo-virides; interiores angustiores, ad marginem crispæ.* Labellum *pallidissimè flavidum, intùs luteum, rubro venosum et punctatum, ad apicem trilobum; lobis lateralibus rotundatis, porrectis, basi interiore sub-cordatis; intermedio cordato, rotundato, explanato, crispo, argutè dentato, apice saccato.* Labellum *per axin lineis duabus elevatis.* Columna *inclusa, pallidè ochroleuca, purpureo lineata.* Stigma *purpureo marginatum.*

Native of Rio Janeiro, where it was found growing upon decayed trees, by the late Mr. Forbes, by whom it was transmitted to the Horticultural Society in 1823. Our drawing was made in the Chiswick Garden, in June 1824.

The genus Cattleya now contains four well-ascertained species, of which this is the least beautiful. They are all

elegant epiphytes, growing among the decayed vegetable matter found upon trees. If planted in a similar substance, and kept in a hot damp stove, they may be easily subjected to cultivation. They are all, however, at present, exceedingly rare plants. Cattleya Loddigesii, which is now the commonest, only exists in a few collections; of C. labiata, which is the finest, we are acquainted with but two plants, both in the possession of Mr. Cattley. The present species is in no other collection than that of the Horticultural Society, where there is but one certain plant. A single individual of C. citrina is also supposed to exist in the latter establishment, but it has not yet blossomed.

It will have been remarked by our readers, that we have for some time been endeavouring to establish divisions in the extensive tribe of Orchideæ, comprising the last section in Mr. Brown's system, and commonly called Epidendrums. Indeed, so long since as the year 1820, we remarked (Coll. Bot. t. 15.) that the parasitical Orchideæ, with waxy pollen-masses, were capable of being separated into at least two divisions, distinguished by certain peculiar and important modifications of the pollen-masses and their appendages. Having at length, in another publication, applied these principles to all the Orchideous plants of which we have any satisfactory information, we think a brief exposition of their final arrangement may not be unacceptable to the readers of the Botanical Register, especially as the work of which we speak is in the hands of but few persons.

The Orchideous plants with waxy pollen are susceptible of the three following modifications of that substance. In the first state the pollen-masses are seated upon a transparent, generally elastic, body, adhering to the upper edge of the stigma by a gland. The elastic body has been named by Richard *caudicula*, and answers to the extensile pedicel of the common Orchis, and to the filamentous axis of Neottieæ. The nature of the gland is more doubtful; but it exists in several tribes of Orchideæ, the pollen of which is not waxy. Plants so characterised we term *Vandeæ*. The second form of pollen-mass consists in the absence of the gland, and in the caudicula being divided into two or four filiform segments, covered with pollen not in a state of cohesion, and folded back over the

margins of the pollen-masses in such a way as to be interposed between them and the Clinandrium, or Bed of the Anther. These constitute true *Epidendreæ*. The third state of the pollen-masses depends upon the total absence of both caudicula and gland. Pollen of this nature may be considered to vary the most from the general structure which obtains in Orchideæ, and to differ from ordinary pollen only in the intimate cohesion of all the granules. Plants with this character are called *Malaxideæ*.

The following is the general arrangement of Orchideæ which has been proposed in the work above mentioned:—

1. §. *Neottieæ*. Pollen simplex v. è granulis laxè cohærentibus.
   Tribus I. NEOTTIEÆ. Anthera stigmate parallela erecta.
   Tribus II. ARETHUSEÆ. Anthera terminalis opercularis.
2. §. *Orchideæ*. Pollen in granulis demùm cereaceis numero indefinitis cohærens.
   Tribus III. GASTRODIEÆ. Anthera terminalis opercularis.
   Tribus IV. OPHRYDEÆ. Anthera terminalis erecta v. inversa. Pollinia caudiculata.
3. §. *Epidendreæ*. Pollen in granis demùm cereaceis numero definitis cohærens.
   Tribus V. VANDEÆ. Pollinia caudiculâ diaphanâ v. glandulâ stigmati affixa.
   Tribus VI. EPIDENDREÆ. Pollinia caudiculis filiformibus pulvereis replicatis stigmati affixa.
   Tribus VII. MALAXIDEÆ. Pollinia libera; nunc ad apicem materie viscidâ v. pulvereâ aut granulosâ cohærentia.
4. §. *Cypripedieæ*. Antheræ laterales fertiles: intermediâ sterili petaloideâ.
   Tribus VIII. CYPRIPEDIEÆ.

OBS. *Affinitas* ORDINIS summa cum Scitamineis per Neottieas; inferior magisque obscura cum Asphodeleis per Thelymitram et Junceis per Malaxideas.

J. L.

BRUNSVIGIA minor.

Small Brunsvigia.

HEXANDRIA *MONOGYNIA.*

Nat. ord. Amaryllideæ.
BRUNSVIGIA. *Suprà, vol.* 3. *fol.* 192, 193.

B. *minor;* foliis 3-4 oblongis humifusis scapo brevioribus, scapo radiis umbellæ longiore, spathâ erectâ carnosâ, perianthiis 6-partitis.

For this beautiful little species of Brunsvigia we are indebted to James H. Slater, Esq., of Newick Park, a gentleman whose valuable communications have often been gratefully acknowledged in this publication.

We were at first disposed to esteem it a variety of Amaryllis laticoma, figured at fol. 497 of this work, but upon further consideration, and aided by the intelligent notes of Mr. Slater, we are now satisfied of their differences.

Mr. Slater thus points out the characters by which B. minor is essentially distinguished: "The flower-stem of my plant rises long before the leaves, that of A. Laticoma, when they are full grown. The spathe of my plant is fleshy, *peculiarly thick*, and continued fresh and erect until the flowers died off; in A. Laticoma this is not the case. The leaves of A. Laticoma are described as 18 inches long, by two-thirds of an inch broad. The leaves of my plant are rather broad for their length; perhaps 6 inches long, by rather more than 1 inch wide. Those of A. L. rise from the neck of the bulb, and are described as falcate; those of my plant fall directly, and cling round the edge of the pot; in their growth, as well as in their shape, very much resembling the leaves of B. Multiflora. The germen of my plant very much resembled, in its early state, the germen of B. Josephinæ; that of A. Laticoma, by the figure,

appears more like the germen of A. fothergillia. The peduncles of A. L. are described as peculiarly thick, which in my plant, I think, was not the case. There is so much resemblance between my plant and B. Multiflora, that it occurred to me, from the very first, that it must be a Brunsvigia. Perhaps I might more correctly have compared its germen with that of B. Multiflora than B. Josephinæ, but not having seen the B. M. in flower, I did not venture to do so. I have that plant now shewing bud, and the spatha also appears to be very fleshy."

The leaves in our figure are represented differently from their description in the above memorandum; but Mr. Slater observes, that the manner of growth mentioned by him is that which is natural to the plant, and such as it was the year before the flower-stem appeared.

This plant is, we suppose, what is meant in the Botanical Magazine, tab. 2578, by a sixth small species of Brunsvigia, imported by the late Mr. Lee under the erroneous name of Cyrtanthus ventricosus, and not yet (June 1825) observed in flower.

A native of the Cape of Good Hope, and requiring the same mode of treatment as other Cape Amaryllideæ.

J. L.

955

RUELLIA persicifolia.

Peach-leaved Ruellia.

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. ACANTHACEÆ.
RUELLIA. *Suprà, vol. 7. fol.* 585.

R. *persicifolia;* foliis ovato-lanceolatis longè acuminatis serratis glabris, floribus axillaribus corymbosis, corollis venosis pilosiusculis: lobis crispis rotundatis emarginatis, caule angulato glaberrimo ad nodos tumido.

Herba *pedalis;* caule *glabro, angulato, ad nodos tumido.* Folia *opposita, quasi alterna, ob folium unicum semper nanum, brevi-petiolata, ovato-lanceolata, longè acuminata, serrata, glaberrima, utrinque conspicuè venosa.* Flores *in corymbis compositis dispositi, ex axillis foliorum inferiorum deciduorum provenientibus.* Bracteæ *imbricatæ, ovatæ, acutæ, glabræ.* Corolla *magna, infundibularis, extùs leviter pilosa, lætè cærulea, venis intensioribus pulcherrimè picta; limbo patente, 5-lobo; lobis rotundatis, crispis, emarginatis, inæqualibus.*

This beautiful Ruellia has been lately introduced from the Botanic Garden, Calcutta, by Mrs. Fairlie. Our drawing was made at Mr. Colvill's Nursery in September.

An elegant little plant, less than a foot high, with a smooth angular stem, which is tumid at the joints. *Leaves* opposite, appearing alternate from the regular dwarfing of one leaf, on short foot-stalks, ovate-lanceolate, with very long points, serrated, quite smooth, strongly marked with veins on either side. *Flowers* in compound corymbs from the axillæ of the lowest leaves, which are usually deciduous. *Bracteæ* imbricated, ovate, acute, smooth. *Corollas* large, infundibuliform, slightly downy on the outside, bright blue, beautifully marked with darker veins; limb spreading, 5-lobed, with rounded, crisp, emarginate unequal lobes.

J. L.

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